

## FOR IMMEDIATE RELEASE

### REI Introduces New ORION™2.4 Non-Linear Junction Detector

Algood, Tennessee, USA – August 22nd, 2013 – Surreptitious electronics are becoming smaller and harder to detect, which can present serious problems for security professionals everywhere. The new ORION™2.4 Non-Linear Junction Detector (NLJD) from REI provides better sensitivity for detecting and locating smaller more advanced semiconductor circuitry, even when the target device is turned off.

The ORION™2.4 can be used to sweep boardrooms, offices or meeting spaces for unauthorized or hidden recording devices or other hidden electronics. It is also effective for searching prison cells for electronic contraband such as cell phones, chargers, or other electronic devices. The ORION™2.4 is smaller and lighter than other non-linear junction detectors and provides superior detection.

The ORION™2.4 can locate small electronics such as SIM cards in walls, floors, ceilings, packaging, fixtures, furniture or containers. A digitally modulated 2.4 GHz transmit signal stimulates non-linear junctions prompting returning harmonic signals at 2 and 3 times the transmit frequency. The receiver digitally correlates and displays 2<sup>nd</sup> and 3<sup>rd</sup> harmonics simultaneously. A stronger 2<sup>nd</sup> harmonic indicates the target to be electronic and suggests further investigation is warranted. A stronger 3<sup>rd</sup> harmonic indicates the response may be a naturally occurring junction such as contact between dissimilar metals, corrosion, or rust. Because the ORION™2.4 is detecting the physical properties of a device and not energy or emissions, the ORION™2.4 will still detect semiconductors, even if the object is turned off or inactive.

In addition to the visual response, the ORION™2.4 also provides selectable audio and haptic (vibration) responses when a potential device is encountered. A trip setting can also be selected to only allow audible or haptic responses beyond the selected threshold. The compact antenna head allows easier access to small areas and is circularly polarized for signal reception regardless of the antenna's orientation. The synthesized transceiver provides frequency stability and agility to automatically search for clean operating frequencies between 2.404GHz-2.472GHz. Receiver sensitivity to both 2<sup>nd</sup> and 3<sup>rd</sup> harmonics is -140 dBm. Transmit power is 3.3 watts (average EIRP). Transmit power settings can be adjusted manually or automatically.



Transmit power and both 2<sup>nd</sup> and 3<sup>rd</sup> harmonic LED level indicators are located on the antenna head for line of site display so the user can see response activity in line with the target area being swept. System and operational status (TX Power mode, Frequency mode, Audio options, etc.) is also displayed on the antenna head and controlled via the keypad on the handle.



The body is small enough to operate as a hand held NLJD (weighing less than 3 lbs/1.4 kg) and also has an in-line telescoping handle that extends the unit to an overall length of 58 in/1.5 m for sweeping hard to reach areas. The single body construction of the ORION™2.4 is water-resistant and requires no assembly. The unit is powered by a 10.8V Li-Ion rechargeable battery. Typical battery run time is >8 hours depending on settings. The ORION™2.4 also comes with a new battery recharging station that also, when connected to the unit or a second recharging station, can charge 2 batteries consecutively.

The completely new design and features of the ORION™2.4, including a higher transmit frequency, increased power, power management, and receiver sensitivity offer significant enhancements in this new generation NLJD. The ORION™2.4 is a critical piece of equipment to own when information security is important.

#### **About Research Electronics International**

For over 30 years, Research Electronics International (REI) has focused on protecting corporate information by designing and manufacturing technical security equipment to protect against illicit information theft and corporate espionage. REI is recognized as an industry leader by corporations, law enforcement agencies, and government agencies for technical security equipment. REI's corporate offices, R&D, manufacturing facilities, and Center for Technical Security are located in Tennessee USA, with an extensive global network of resellers and distribution partners. For more information call +1 (931) 537-6032 or visit REI on the web at [www.reiusa.net](http://www.reiusa.net).

###

Contact Person: Tim Cody  
Research Electronics International  
Tel: +1 931 537-6032  
email: [tcody@reiusa.net](mailto:tcody@reiusa.net)