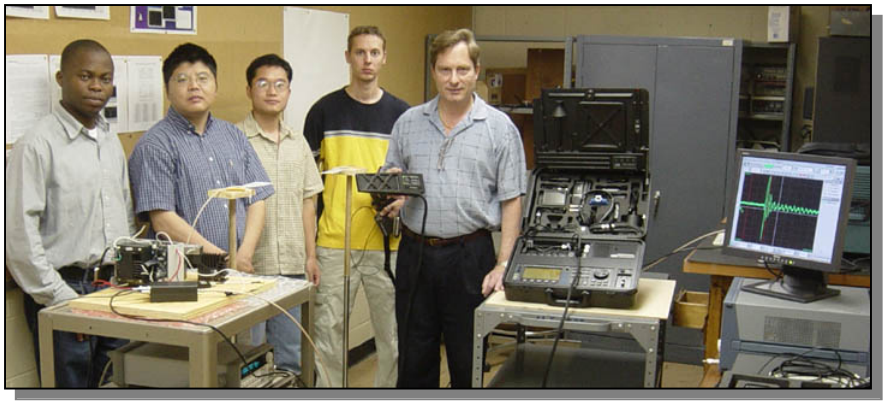
Research Electronics International Teams with Tennessee Technological University for Ultra-Wide Band (UWB) Testing

FOR RELEASE February 8, 2005

Algood, Tennessee - Research Electronics International (REI), the world's leading manufacturer of technical surveillance countermeasures (TSCM), has been working with Tennessee Technological University to determine detection methods of Ultra-Wide Band (UWB) transmitters for TSCM purposes.

Ultra-Wide Band (UWB) transmitters represent a new method of RF modulation, typically consisting of extremely narrow pulses (in the range of 250 picoseconds). The modulation scheme is a time division multiplexed system based on the timing of the pulses across a large frequency range. It is suspected that this new method of modulation will likely be used for short-range communications (approximately 10 meters), but other applications will certainly be developed. With a potential frequency band of 2GHz to 10GHz, the new UWB modulation represents some interesting characteristics from the technical security perspective, specifically with regard to the detection of UWB transmissions potentially used in eavesdropping devices.

In an effort to determine detection characteristics of UWB for TSCM purposes, REI has been working with Tennessee Technological University, who has been developing a UWB test transmitter for research purposes (REI engineers with Tennessee Technological University engineers pictures below).



UWB detection with the ORION Non-Linear Junction Detector proved extremely successful. The UWB output stage is a wideband amplifier with high-speed electronic components; the characteristics of these components provide for easy detecting using the ORION NLJD.

The OSCOR 5000E (TSCM spectrum analyzer) and Microwave Downconverter (MDC) also detected the UWB transmitter from a distance of approximately 3 meters. The

wideband pulses create an easily identifiable spectrum range with a unique RF signature.

The CPM-700 (broadband near field detector) with the Broadband Microwave Probe (BMP) also produced good results in detecting the UWB transmitter. Detection was seen at a distance of approximately 3 meters. The BMP's frequency range of 2GHz to 12GHz is extremely well suited for the UWB frequency range (2GHz to 10 GHz).

UWB represents a new method of modulation and will obviously continue to develop, representing a new potential threat for technical security. REI will certainly continue to develop its products for improved detection capabilities to detect the most modern threats, however current testing indicates that existing REI equipment will detect UWB transmitters.

About Research Electronics International

For over 20 years, Research Electronics International (REI) has specialized in the design and manufacture of eavesdropping detection and countermeasure equipment. REI's products are used in over 85 countries worldwide by professional sweep teams (TSCM) as well as law enforcement organizations, corporations, and governments to protect sensitive or critical information. REI's goal is to provide the highest quality equipment for the protection of sensitive and critical information. REI's corporate offices, 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 us on the web at www.reiusa.net.