



U.S. PATENTS: 5,815,122; 6,057,765; 6,163,259 U.K. PATENTS: GB2344423; GB2351154; GB2381077; GB2381078

Detect and Locate Hidden Cellular Phones in Prison Cells...

Cellular Phones are becoming one of the most dangerous forms of prison contraband, allowing prisoners to bypass regulations and conduct illicit activity from behind bars.

The ORION NLJD locates hidden electronic devices such as cellular phones, etc.



Features

The ORION is the World's leading Non-Linear Junction Detector (NLJD) for detecting hidden electronic devices. The ORION detects semiconductor junctions (present in virtually all electronic devices, including cellular phones) and provides a working solution to controlling contraband cellular phones in correctional facilities.

- Detects electronics in cellular phones/chargers, EVEN when the phone is turned off
- Patented Digital Signal Processing Algorithms increases sensitivity
- Patented Frequency Hopping functionality increases detection reliability
- Lightweight, Balanced, Ergonomic Design: only 3.3lbs (1.5kg)
- Includes 4 rechargeable NiMH batteries; 2.5 hours run-time per battery
- Detects through common hiding places (mattresses, clothing, food boxes, etc.)
- Portable, fits into a case slightly larger than a standard brief case
- Easy to use, easy to read display alerts on hidden electronics

*Product specifications and descriptions subject to change without notice.

455 Security Place • Algood, TN 38506 USA • TEL +1 931.537.6032 800.824.3190 (US ONLY) • FAX +1 931.537.6089 • www.reiusa.net Research Electronics Intl® TECHNICAL SECURITY SPECIALISTS





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Locates Hidden Electronic Contraband such as Cellular Phones





A strong RED response indicates electronics contained in potential contraband such as a cellular phone (the red LEDs represent the 2nd harmonic).



The GREEN LEDs indicate the transmit power level.

A strong YELLOW response indicates a false target such as a rusty nail or other corrosive metal object (yellow LEDs represent the 3rd harmonic).

Technical Specifications

TRANSMITTER

Frequency Bands: 880–1005MHz in 200kHz (FCC Band 902.2-927.8MHz) Transmit Power: 14 milliwatts minimum, 1.4 watts peak Effective Radiated Power (ERP) Power Control: Manual or auto control with 30 dB range

RECEIVER

Frequency Bands: Second Harmonic (1760–2010MHz) or Third Harmonic (2640–3015MHz) **Sensitivity**: -133dBm for Second and Third Harmonics **DSP S/W Integration**: Programmable between 6 and 18dB gain in sensitivity performance

BATTERY/CHARGER

Batteries: (4 included) 7.2V NiMH Run Time: 2.5 hours per battery (SRCH mode) Charge Time: 1 hour per battery Charger Input AC: 100-240V, 50-60Hz

MECHANICAL

Extension Lengths: 16–51 in (40.6–129.5 cm) Operational Weight with Battery: 3.3 lbs (1.5 kg) Case Dimensions: 6.25 in x 14.9 in x 18.5 in (15.9 cm x 37.8 cm x 47.0 cm) Case Weight: 11.5 lbs (5.2 kg)



Georgia Department of Corrections Implements ORION NLJD to Locate Hidden Contraband Cellular Phones in Correctional Facilities...



Algood, Tennessee -- August 20, 2007 – Cellular phones continue to be one of the most dangerous forms of prison contraband, allowing inmates to bypass internal security measures creating a security risk that can reach beyond prison walls. Correctional authorities have indicated that cellular phones have become more valuable inside a prison than drugs or other contraband, and are often referred to as the new prison cash because inmates can sell minutes or cellular phone use to other inmates.

To combat the contraband cell phone issue, the Georgia Department of Corrections recently implemented ORION Non-Linear Junction Detectors to detect and locate contraband cell phones. The ORION Non-Linear Junction Detector (NLJD) manufactured by REI in Algood Tennessee USA, detects electronic components allowing the user to detect and locate hidden electronic items (such as hidden cellular phones), even if the electronic item is turned off or not transmitting.

Feedback from the Georgia Department of Corrections has been very positive indicating that they have located multiple contraband cell phones as well as other electronic contraband using the ORION.

Tom Jones, General Manager of REI, responded by stating that "REI is very excited to be assisting the corrections market in addressing the security threats posed by contraband cellular phones. We are impressed with Georgia's strong commitment to provide safe correctional facilities."

The ORION is one of the leading technologies being used to combat contraband cellular phones inside correctional facilities. For additional information on the ORION NLJD for locating and detecting cell phones in prisons visit:

http://www.reiusa.net/system/products/NJE-4000/NLJD Prison 2007.pdf

About Research Electronics International

For 25 years, Research Electronics International (REI) has specialized in the design and manufacture of Technical Security Countermeasure equipment, and is the largest manufacturer of Non-Linear Junction Detection equipment in the World. REI's technical security equipment is used in over 100 countries worldwide by law enforcement organizations, government agencies, and corporations. 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 throughout the world. For more information call +1 (931) 537-6032, e-mail sales@reiusa.net, or visit REI on the web at www.reiusa.net.

GEO Group Inc. Implements Leading Technology to Combat Hidden Contraband Cellular Phones in Correctional Facilities...

Algood, Tennessee -- July 26, 2006 – Cellular phones have become the latest epidemic in prison contraband, posing a danger that extends beyond prison walls. Correctional authorities have indicated that cellular phones have become more valuable inside a prison than drugs or other contraband, and are often referred to as the new prison cash because inmates can sell minutes or cellular phone use to other inmates.

The GEO Group Inc., the second largest private prison management company in the United States, is leading the Correctional industry by implementing a new application of patented high-tech equipment for detecting and locating hidden contraband cellular phones (even if the phone is not transmitting or even turned off).

The equipment, the ORION Non-Linear Junction Detector (NLJD) manufactured by REI in Algood Tennessee, responds to electronic components, allowing the user to detect and locate electronic items (such as hidden cellular phones), even if the electronic item is turned off or not transmitting. This technology offers a working solution for correctional facilities to manage contraband cellular phones.



Previously correctional institutions were limited to physical searches or struggling with other forms of technology that were ineffective or inefficient for detecting and locating hidden cellular phones, or violated FCC regulations by potentially interfering with legitimate cellular phone transmissions.

Only recently has Non-Linear Junction Detection technology been applied to the prison industry. REI, the largest manufacturer of non-linear junction detectors in the world, has successfully demonstrated the ORION NLJD throughout the United States and Internationally, and will be demonstrating the ORION NLJD at the upcoming American Correctional Association Summer Conference in August of 2006 in Charlotte NC.

The GEO Group Inc. initially tested an ORION NLJD in Florida and Pennsylvania, successfully locating and detecting cellular phones as well as other types of electronic contraband.

ORION NLJD used to Detect and Locate Hidden Contraband Cellular Phones in European Prisons...



Algood, Tennessee, USA – December 20, 2007

Electronic contraband, specifically cellular phones, continue to pose serious threats within correctional facilities, allowing inmates to bypass communication security measures, creating risks that reach beyond prison walls. Prison authorities have reported that cellular phones have become more valuable inside a prison than drugs or other contraband, and are often referred to as the new prison cash because inmates can sell minutes or cellular phone use to other inmates.

In response to the growing threat of contraband cell phones, the Estonian Department of Justice has implemented the ORION Non-Linear Junction Detector (NLJD) to detect and locate contraband cell phones in prisons. The ORION NLJD, manufactured by REI in Algood Tennessee USA, detects electronic components allowing the user to locate hidden electronic items (such as hidden cellular phones), even if the electronic item is turned off or not transmitting.

Mr. Tarmo Pruuli of the Estonian Department of Justice expressively states:

"The ORION has been very useful for finding contraband, especially in walls and floors of prisoner's living areas. During several months of use, Estonian prison personnel have found 12 mobile phones, 9 mobile phone chargers, and other electronic contraband."

The ORION is one of the leading technologies being used to combat contraband cellular phones in correctional facilities with over 50 implementations in the US and Europe. For additional information on the ORION NLJD for locating contraband cell phones in prisons visit: <u>http://www.reiusa.net/system/products/NJE-4000/NLJD_Prison_2007.pdf</u> or contact REI.

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MSNBC Lock-up Features ORION NLJD to Detect and Locate Contraband Cell Phones Hidden in Prisons

ORION NLJD Cell Phone Detection Equipment demonstrated in MSNBC Lock-up episode profiling Brushy Mountain Maximum Security Correctional Complex in Tennessee. Sgt. Richard Metcalf of Tennessee Department of Correction demonstrates how the ORION NLJD finds hidden cellular phones regardless of whether or not the phone is transmitting or even turned on.

Algood, Tennessee, January 9, 2007– The popular MSNBC television show *Lock-up: Brushy Mountain* profiles one of Tennessee's most notorious maximum security prisons, as well as discussing how contraband cell phones have become one of the biggest problems facing correctional facilities today, allowing inmates to jeopardize criminal cases, intimidate witnesses, or even cost lives.

In the documentary, Tennessee Department of Correction (TDOC) Officials explain how a cell phone smuggled into the Brushy Mountain Correctional Complex was used on August 9, 2005 to orchestrate an escape, which lead to the death of a correctional officer. Cell phones are now classified as one of the most dangerous forms of contraband at Brushy Mountain. To address the growing cell phone problem in prisons, Tennessee Department of Corrections (TDOC) has provided several facilities with an ORION NLJD, manufactured by Research Electronics International (www.reiusa.net), which detects and locates hidden contraband cellular phones.

Sgt. Richard Metcalf (TDOC) explains that the ORION "looks for circuits in all cell phones whether turned on or off, active or inactive." Sgt. Metcalf continued to say that the ORION alerts on all hidden electronics, which may include non-contraband electronics (such as a hidden radio, etc.), however "the one time it does find a cell phone, it will all have been worth it."

The ORION is one of the leading technologies being used to combat the cellular phone problem inside correctional facilities. For additional information on the ORION NLJD for locating and detecting cell phones in prisons visit:

http://www.reiusa.net/system/products/NJE-4000/NLJD_Prison_2006.pdf

About Research Electronics International

For over 20 years, Research Electronics International (REI) has specialized in the design and manufacture of Technical Security Countermeasure equipment, and is the largest manufacturer of Non-Linear Junction Detection equipment in the World. REI's technical security equipment is used in over 90 countries worldwide by law enforcement organizations, government agencies, and corporations. 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 throughout the world. For more information call +1 (931) 537-6032, e-mail sales@reiusa.net, or visit REI on the web at www.reiusa.net.

Subsequently, the GEO Group organized an exercise with REI in Tennessee in a local correctional facility, training several GEO Group Field Officers to deploy the ORION at several GEO facilities across the United Sates.

"REI has been overwhelmed by the response from correctional facilities, and we are glad to be a part of the solution... We are impressed with the GEO Group's commitment to utilize leading technological solutions to provide world class correctional facilities," stated Tom Jones, General Manager of REI.

Other prison systems using the ORION NLJD have indicated that in addition to finding contraband cellular phones with the ORION, other contraband such as drugs, weapons, etc were also located. The ORION does not actually detect non-electronic contraband (such as drugs), however when a cellular phone is found, other contraband is often hidden with the contraband cellular phone.

This new application of patented technology represents a significant breakthrough in addressing one of the biggest problems confronting prison systems today. The GEO Group's implementation of the ORION NLJD for combating the cellular phone problem in prisons demonstrates their continued commitment to leading the correctional industry.

About GEO Group Inc.

The GEO Group, Inc. ("GEO") is a world leader in the delivery of correctional, detention, and residential treatment services to federal, state, and local government agencies around the globe. GEO offers a turnkey approach that includes design, construction, financing, and operations. GEO represents government clients in the United States, Australia, South Africa, Canada, and the United Kingdom. GEO's worldwide operations include 62 correctional and residential treatment facilities with a total design capacity of approximately 51,000 beds.

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Prison Finds Hidden Cellular Phones with REI's ORION Non-Linear Junction Detector...

FOR RELEASE July 22, 2005

Algood, Tennessee - Research Electronics International (REI) and the Tennessee Department of Correction successfully tested the ORION Non-Linear Junction Detector as a search tool for locating cellular phones hidden in prison cells.

The ORION Non-Linear Junction Detector (NLJD) detects and locates the semiconductor junctions in electronic components used in electronic devices, regardless if the device is transmitting or even turned on. This makes the ORION NLJD a useful tool for detecting and locating hidden electronic devices (such as cellular phones), even if the devices are turned off. The REI ORION NLJD, designed and manufactured using REI patented technology, is recognized as the most sophisticated non-linear junction detector in the world.

REI performed an initial test of the ORION NLJD for locating cellular phones in a prison cell with the help of the Tennessee Department of Correction at the Riverbend Maximum Security Institution located in Nashville Tennessee, USA. During this initial test of an inmate's prison cell, a "hit" was detected in a large stack of papers in a bookshelf. Upon closer examination, it was determined that the "hit" was not a cellular phone, but an electronic greeting card (much smaller than a cellular phone) that contained semiconductors.

On a subsequent test performed by Tennessee Department of Correction prison personnel, the ORION NLJD located two cellular phones and three chargers hidden in mattresses and a large laundry cart. Feedback from prison personnel stated the ORION would be a valuable tool in controlling cellular phones in prisons.

These successful tests indicate that the ORION NLJD can be used as an effective search tool to detect and locate hidden cellular phones in prison cells.

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