

# NON-LINEAR JUNCTION DETECTOR

U.S. PATENTS: 5,815,122; 6,057,765; 6,163,259 U.K. PATENTS: GB234 432; GB235 1154; GB238 1077; GB238 1078

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

Cellular Phones are becoming the newest form of prison contraband, allowing prisoners to bypass regulations and conduct illicit activity from behind bars.

The ORION NLJD detects and locates hidden cellular phones, pagers, 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
- Frequency range optimized for cellular phone detection
- 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.





## **Easily Detects Hidden Cellular Phones**

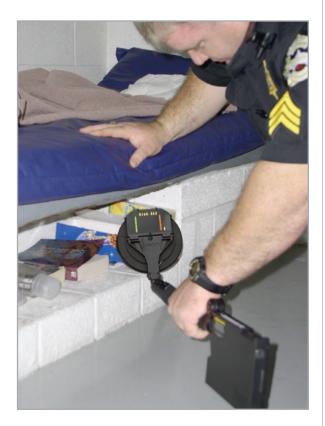


A strong RED response indicates electronics contained in potential contraband such as a cellular phone (the red LEDs represent the 2nd harmonic).



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

Receiver Bandwidth: 3kHz

## **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)

