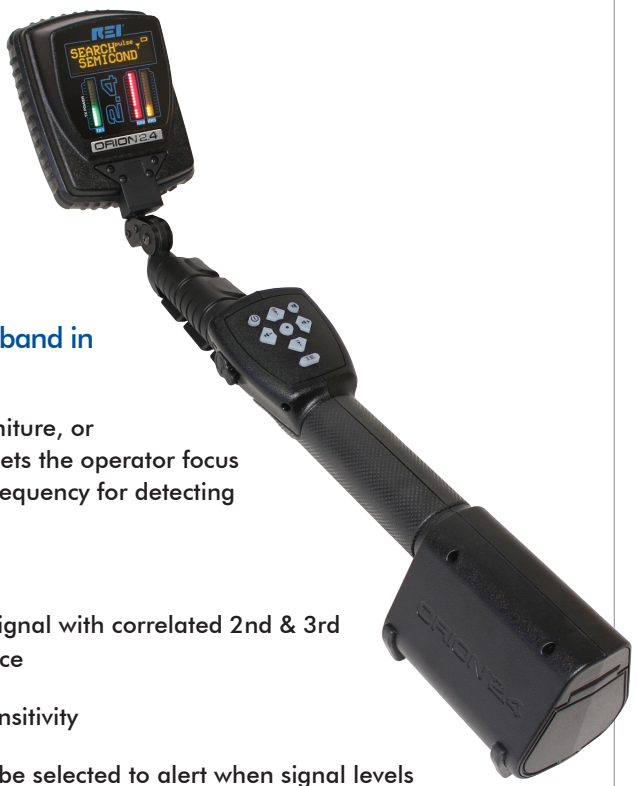
ORION® 2.4

Non-Linear Junction Detector

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

Smaller, lighter, 2.4 GHz transmit frequency provides excellent detection and sensitivity!

The ORION is a state-of-the-art Non-Linear Junction Detector for detecting hidden electronic devices. A Non-Linear Junction Detector detects the presence of electronics, regardless of whether the electronic target is radiating, hard wired, or even turned off.



The ORION quickly detects and locates hidden electronic devices and is designed for:

- Commercial security applications such as checking corporate board rooms or offices for unauthorized or hidden electronics,
- Searching secure areas for hidden or prohibited electronics,
- Searching for contraband cell phones or other electronic contraband in prisons.

The ORION locates hidden electronics in walls, floors, ceilings, fixtures, furniture, or containers. The ORION has an antenna-mounted line of sight display that lets the operator focus on the target while sweeping. The NEW ORION 2.4 transmits at 2.4GHz frequency for detecting small electronics such as SIM cards and cell phones.

Technical Advantages

1. **DIGITAL MODULATION & CORRELATION -** digitally modulated transmit signal with correlated 2nd & 3rd harmonic response provides improved detection & minimizes interference
2. **WIDE BANDWIDTH TRANSMIT SIGNAL -** 1.25MHz increases detection sensitivity
3. **MULTIPLE ALERT METHODS-** Alert tones and Haptic (vibration) alert can be selected to alert when signal levels surpass the trip levels
4. **LED HEAD LAMP -** Illuminates target area
5. **MANUAL OR AUTOMATIC POWER CONTROL** up to 3.3 watts
6. **SMALL LIGHTWEIGHT DESIGN -** weighs 2.8 lbs/1.3 kg
7. **LINE OF SIGHT ANTENNA MOUNTED DISPLAY** allows user to focus eyes on sweeping target and display at same time.
8. **INTEGRATED POLE -** no pole or cable assembly required.
9. **SYNTHESIZED TRANSCEIVER** provides frequency stability and agility to automatically search for clean operating frequencies (2.404GHz to 2.472GHz).
10. **CIRCULARLY POLARIZED TRANSMIT AND RECEIVE ANTENNA** removes risk of missing a threat due to incorrect antenna polarization.

* Preliminary Specifications. Product specifications and descriptions subject to change without notice.

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Research Electronics Intl®
TECHNICAL SECURITY SPECIALISTS

ORION® 2.4

NON-LINEAR JUNCTION DETECTOR

ORION® 2.4 ADVANTAGES

LIGHTWEIGHT DESIGN FOR EASE OF USE
OPERATIONAL WEIGHT LESS THAN 2.8lbs (1.3kg)

UTILIZES 2.4GHZ FREQUENCY BAND
OPTIMIZING DETECTION RANGE

MINIMUM SETUP TIME
SETUP IS QUICK, QUIET, AND EASY - NO CABLES, POLE SECTIONS, OR BULKY TRANSCEIVER TO ASSEMBLE OR CARRY

ANTENNA MOUNTED DISPLAY
FOR LINE OF SIGHT TARGET FOCUS

WIDE BANDWIDTH TRANSMIT SIGNAL: 1.25MHz
INCREASES DETECTION SENSITIVITY

DIGITAL MODULATION AND CORRELATION
PROVIDES INCREASED SENSITIVITY AND MINIMIZES INTERFERENCE

TRAINING BY REI INSTRUCTORS
REI offers regularly scheduled technical security training courses.

On-site training also available.
Course dates and registration online at www.reiusa.net or email sales@reiusa.net

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MARKETING CHARACTERISTICS

TRANSMITTER

Frequency Bands: 2.404GHz - 2.472GHz
Transmit Channels: Manual or auto selection, more than 60 available
Transmit Power: 3.3 watts EIRP
Power Control: Manual or auto control
Transmit Modulation: Digital 1.25 MHz BW

RECEIVER

Simultaneous 2nd & 3rd harmonic receive
Digitally Correlated
Frequency Bands: Transmit Band (2.404GHz - 2.472GHz);
Second Harmonic (4.808GHz - 4.944GHz);
Third Harmonic (7.212GHz - 7.416GHz)
Sensitivity: -140 dBm for both harmonics

DISPLAY

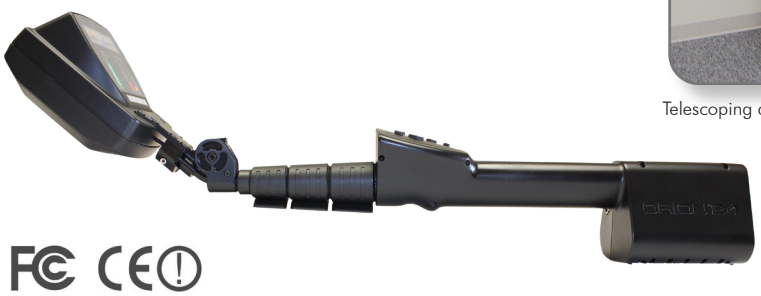
Antenna-mounted Display
Bar Graph Display for transmit power level, 2nd harmonic level, 3rd harmonic level, data field display, for other information (operation mode, low battery, volume, DSP gain, etc.)

MECHANICAL

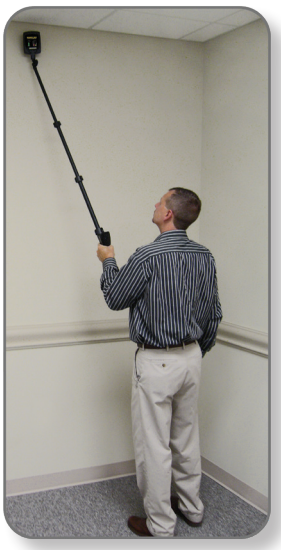
Extension Lengths: 16-51 in (40.6-129.5 cm)
Case Dimensions: 6.25 x 14.9 x 18.5 in (15.9 x 37.8 x 47.0 cm)
ORION 2.4 Dim: 22.6 x 4 x 3.5 in (57 x 10x 9 cm)
Overall Extended Length: 58 in (147 cm)
ORION 2.4 Weight w/Battery: 2.8 lbs (1.3kg)
Case Weight Including ORION & Accessories: 11.6 lbs (5.2kg)

BATTERY

Input AC: 100–240 V, 50–60 Hz
Run Time: >8 hours per battery (typical)
Charge Time: 2.5 hours per battery
Batteries: Lithium Ion Rechargeable Battery (2 included)



Telescoping antenna pole retracted.



Telescoping antenna pole extended.