



# BATTERY POWERED iSERIES



 powered by  
**INOVONICS**<sup>®</sup>

**ACTIVE & PASSIVE INFRARED —  
INDOOR & OUTDOOR DETECTION**



# BATTERY-POWERED WIRELESS

## Professional Grade Detection Powered by Inovonics

Greatly reduce install time and labor cost with the industry's number one choice for battery-powered perimeter and area protection. From rooftop HVAC protection to electrical substations, the iSeries line of detectors from OPTEX offers a battery-powered, wireless solution for all your security needs. Each iSeries detector includes an Inovonics EN1941 wireless transmitter pre-installed, allowing for a quick and inexpensive setup with no trenching or wiring needed. Batteries are also included, with an average lifespan of two to ten years depending on the detector and frequency of use. From perimeter to interior, no one offers a more complete line of battery-powered security detections and solutions than OPTEX.



# FEATURES & VALUE

## Battery-Powered Advantages & Value

What value comes with wireless, battery-powered detectors? From installation time to labor cost, iSeries detectors offer these advantages over traditional hardwired installations:

### 1. Cost

In the majority of cases, applications such as utility substations and large parking lots can be too expensive or labor intensive to trench.



### 2. Power

iSeries battery-powered beams and PIRs can be installed in areas where power is not readily available, such as roof tops or remote locations.



### 3. Installation Downtime

Because of the significant drop in installation time and the fact that no trenching is required, end-users are less inconvenienced. Businesses and residences can operate as usual during the install.



### 4. Flexible

In environments where storage conditions may change, such as construction sites and storage facilities, battery-powered device options allow the detection area to move accordingly with minimal effort.



### 5. Easy Upgrade

Battery-powered beam and PIR options can easily be added on to existing security, video, or access systems.



## Wireless Battery-Powered Multi-Level Security

### Perimeter Security

#### Reduction in Labor Costs & Installation Time

The iSeries battery-powered, wireless detectors are a perfect way to set up and secure a perimeter without having to trench or run wire. Because of this, an end user can continue business as usual without interruption due to installation labor. A complete perimeter can be set up in hours as opposed to days or even weeks. Both the installer and end-user can also expect a substantial cost savings alternative to a traditional hardwired system. Customers who previously shied away from perimeter security due to cost can now afford a first line of defense as opposed to waiting for a person to do damage before an alarm is triggered.



### Approach / Spot Protection

#### Flexible Security for Changing Site Conditions

For areas inside the perimeter, the iSeries mid-range PIR detectors are a great way to add additional protection to assets and high security areas. In applications where conditions and security needs change on a regular basis, such as construction sites and storage yards, the battery-powered, wireless iSeries can be easily moved or adjusted to fit those needs. Want to back up any alarms with CCTV footage? No problem! The iSeries detectors can easily be used to trigger PTZ or fixed cameras for video verification.



### Immediate Perimeter / Boundary Security

#### Exterior Structure Protection

For areas inside the perimeter, the iSeries mid-range PIR detectors are a great way to add additional protection to assets and high security areas. In applications where conditions and security needs change on a regular basis, such as construction sites and storage yards, the battery-powered, wireless iSeries can be easily moved or adjusted to fit those needs. Want to back up any alarms with CCTV footage? No problem! The iSeries detectors can easily be used to trigger PTZ or fixed cameras for video verification.

### Interior Protection

#### Battery-Powered Warehouse and Indoor Detection

The harsh conditions of a warehouse require a robust detector. The iSeries battery-powered, wireless interior detectors allow for a quick and easy install with stable detection in even the harshest of environments. In addition, all iSeries outdoor detectors will work indoors as well.

# Battery-Powered, Wireless Protection

## iSERIES LINEUP



### CX-702Ri / EX-35Ri HARSH ENVIRONMENT / INDOOR COMMERCIAL PIRS

- CX: Selectable 70 x 70ft / 150 x 8ft detection pattern
- EX: Selectable 35 x 35ft / 55 x 5.5ft detection pattern
- Low indoor temperature rating (14°F)
- Spherical fresnel lens design
- Patented multi-focus technology
- Double conductive shielding (CX)
- Temperature compensation (CX)
- 3-step lens angle adjustment
- Tamper proof (EX)

| Model           | EX-35Ri  | CX-702Ri  |
|-----------------|--|---|
| Coverage        | Wide: 35ft. x 35ft. 85° (11m x 11m)<br>Long: 55ft x 5.5ft (17m x 1.7m) | Wide: 70ft. x 70ft. 85° (21m x 21m)<br>Long: 150ft x 8ft (45m x 2.4m) |
| Power Input     | 3-9V DC lithium battery (included)                                     |   |
| Current Draw    | 25µA (standby)/80mA (test, LED on)                                     | 25µA (standby)/80mA (test, LED on)                                    |
| Alarm Output    | Form C 10V DC 0.01A max.   |   |
| Tamper Switch   | Form C 28V DC 0.1A max.  |   |
| Operating Temp. | 14°F to 122°F  |   |
| Mounting Height | 4ft - 8ft (1.5m - 3.6m)<br>Pet Alley: 2ft. 4ft. (6m - 1.2m)            | 5ft - 12ft (1.5m - 3.6m)  |



### FTN-RAMi ALL ENVIRONMENT SHORT RANGE DUAL PIR

- Digital anti-masking
- 16.5ft or 6.7ft selectable narrow range
- 190° horizontal adjustment
- Separable form factor
- Super multi dimension analysis logic
- Double conductive shielding
- Intelligent 'AND' logic
- IP55

| Model           | FTN-RAMi  |
|-----------------|---|
| Coverage        | Long Setting: 16.5ft. x 3.3ft. (5m x 1m)<br>Short Setting: 6.7ft.x 3.3ft. (2m x 1m) |
| Power Input     | 3-9V DC lithium battery (included)  |
| Current Draw    | 19µA (standby) 73mA (max)   |
| Alarm Output    | N.C./N.O. Selectable-Solid State Switch<br>10 V DC 0.01 A(max.)                     |
| Trouble Output  | N.C./N.O. Selectable-Solid State Switch<br>10 V DC 0.01 A(max.)                     |
| Operating Temp. | -4 to 140°F (-20 to 60°C)   |
| Mounting Height | 2.7ft to 4ft (0.8m to 1.2m)   |



### BX-80NRi ALL ENVIRONMENT IMMEDIATE PERIMETER DUAL PIR

- Unique 3 x 40ft pattern in each direction from sensor
- Battery saving circuit
- Low current draw
- Limit detection range function
- Size judging function to avoid false alarms
- Variable detection range to 80ft (40ft each side)
- IP55

| Model           | BX-80NRi                                |
|-----------------|---|
| Coverage        | 3ft x 80ft (40ft on each side)          |
| Power Input     | 3-9V DC lithium battery (included)      |
| Current Draw    | 24µA(Standby) / 73mA(Walktest, LED on)  |
| Alarm Output    | Form C Solid state switch: 10V DC 0.01A |
| Tamper Switch   | Form C activates when cover is removed  |
| Operating Temp. | -4°F to 122°F (-20°C to 50°C)           |
| Mounting Height | 2.7ft to 4ft (0.8m - 1.2m)              |



### BXS-RAMi ALL ENVIRONMENT BOUNDARY QUAD PIR

- 80ft total detection coverage, 40ft on each side
- Quad PIR technology, versatile design
- Anti-masking, with size judging function
- Monitors both sides independently or simultaneously
- Extreme high detection mode
- Automatic walk test mode
- IP55

| Model           | BXS-RAMi   |
|-----------------|--|
| Coverage        | 80ft total, 40ft on each side  |
| Power Input     | Qty 2 of 3V DC Lithium or Alkaline batteries   |
| Current Draw    | 25µA stand-by/78mA max at 3V DC  |
| Alarm Output    | Solid-state switch, 10V DC 0.01 A max,<br>Individual, right/left or general, N.O. or N.C. selectable |
| Tamper Output   | Shared with trouble output   |
| Operating Temp. | -22°F to 140°F (-30°C to 60°C)   |
| Mounting Height | 2'7" to 4' (0.8 to 1.2m)   |



### VXS-RAMi / VXS-RDAMI ALL ENVIRONMENT WIDE ANGLE PIR & DUAL TECH

- RAMi: PIR with anti-masking
- RDAMI: Dual tech microwave & PIR with anti-masking
- 40ft 90° detection
- Easy set up with rotation lock
- Super multi dimension analysis logic
- IP55

| Model           | VXS-RAMi  | VXS-RDAMI                 |
|-----------------|---|---------------------------|
| Coverage        | 40 ft (12.0 m) 90° wide / 16 zones                              |                           |
| Power Input     | 3-9V DC lithium battery (included)                              |                           |
| Current Draw    | 19µA (standby) 74mA (max)                                       | 27µA (standby) 78mA (max) |
| Alarm Output    | N.C./N.O. Selectable-Solid State Switch<br>10 V DC 0.01 A(max.) |                           |
| Trouble Output  | N.C./N.O. Selectable-Solid State Switch<br>10 V DC 0.01 A(max.) |                           |
| Operating Temp. | -4 to 140°F (-20 to 60°C)   -4 to 113°F (-20 to 45°C)           |                           |
| Mounting Height | 2.7ft to 4ft (0.8m to 1.2m)                                     |                           |



### WXS-RAMi / WXS-RDAMI ALL ENVIRONMENT 180° PANORAMIC PIR & DUAL TECH

- RAMi: PIR with anti-masking
- RDAMI: Dual tech microwave & PIR with anti-masking
- 8 to 40ft range per side, up to 80ft total detection area
- 180° panoramic coverage
- High or low mounting options
- Monitors both sides independently or simultaneously
- IP55

| Model           | WXS-RAMi   | WXS-RDAMI                 |
|-----------------|--|---------------------------|
| Coverage        | High mount: 30ft Low mount: 40ft   180° wide   |                           |
| Power Input     | 3 to 3.6V DC lithium batteries   |                           |
| Current Draw    | 28µA (standby) 74mA (max)  | 33µA (standby) 78mA (max) |
| Alarm Output    | Solid-state switch, 10V DC 0.01 A max,<br>Individual, right/left or general, N.O. or N.C. selectable |                           |
| Trouble Output  | Solidstate switch, 10 V DC 0.01 A max.<br>[N.O. or N.C.] are selectable (with tamper)                |                           |
| Operating Temp. | -4 to 113°F (-20 to 45°C)  |                           |
| Mounting Height | High mount: 6' 7"   Low mount: 2' 7" to 4'   |                           |



## QXI-RDTi ALL ENVIRONMENT 120° WIDE ANGLE PIR



- 40ft by 120° wide angle detection
- High or low mount
- Dual tech microwave & PIR with anti-masking
- Sleek & compact design with Quad Element
- Multi-level pattern for intelligent high mount detection
- Pet ally pattern for low mounting to reduce false alarms
- IP54

| Model           | QXI-RDTi  |
|-----------------|---|
| Coverage        | 40 ft (12.0 m) 120° wide, Zones - Pet alley: 18, Multi-Level: 40                  |
| Power Input     | -   |
| Current Draw    | 25uA standby 81mA max. at 3V DC   |
| Alarm Output    | N.C./N.O. switchable<br>28 V DC 0.1 A max.  |
| Tamper Output   | Shared with trouble output  |
| Operating Temp. | -40°C to +45°C (-40°F to +113°F)  |
| Mounting Height | Multi level: 2.2 to 2.7 m (7'3" to 8'11")<br>Pet alley: 0.8 to 1.2 m (2'7" to 4') |

## HX-40RAMi / HX-80NRAMi ALL ENVIRONMENT HIGH MOUNT DUAL PIR



- 40RAMi: 40 x 50ft detection range with anti-masking
- 80NRAMi: 80 x 6ft detection range with anti-masking
- Mounting height 7 to 10ft
- Intelligent 'AND' logic
- Double conductive shielding
- Advanced temperature compensation logic
- Summer night compensation & vegetation sway analysis
- IP55

| Model           | HX-40RAMi, HX-80NRAMi  |
|-----------------|--|
| Coverage        | HX-40RAMi: 40ft x 50ft, 85° wide (12m x 15m)<br>HX-80NRAMi: 80ft x 6.7ft narrow (24m x 2m) |
| Power Input     | 3-9V DC lithium battery (included)   |
| Current Draw    | 39uA(Standby) / 74mA(Walktest, LED on)   |
| Alarm Output    | Form C Solid state switch: 10V DC 0.01A  |
| Tamper Output   | Form C. 28V DC, 0.1A max.  |
| Operating Temp. | -4°F to 140°F (-20°C to 60°C)  |
| Mounting Height | 8.3ft to 10ft (2.5m - 3.0m)  |

## REDWALL® SIP-3020WFi / SIP-4010WFi / SIP-404WFi

### ALL ENVIRONMENT MID TO LONG RANGE PIR FOR CCTV ACTIVATION



- Low power consumption, low current draw
- Independent N.C. & N.O. alarm output
- Independent sensitivity selector for near / far
- Suited for remote / local video monitoring applications
- Anti-rotation / anti-masking function
- Advanced detection algorithm, detection range selector
- IP55 chassis, IP65 main unit



| Model                   | SIP-3020WFi   | SIP-4010WFi                 | SIP-404WFi                 |
|-------------------------|---|-----------------------------|----------------------------|
| Coverage                | 100ft x 65ft<br>(30m x 20m)   | 130ft x 33ft<br>(40m x 10m) | 130ft x 13ft<br>(40m x 4m) |
| Power Input             | 3.6V, 13.0Ah LSH20 lithium battery (included)   |                             |                            |
| Current Draw            | 49uA (standby) 75mA max (operating, LED on)   |                             |                            |
| Alarm Output            | N.C. 10V DC, 0.01A max.<br>N.C. 10V DC, 0.01A max.  |                             |                            |
| Trouble Output          | N.C. 10V DC, 0.01A max.   |                             |                            |
| Sensitivity Selector    | Far: SH/H/M/L Near: SH/H/M/L  |                             |                            |
| Operating Temp.         | -13 to 140°F (-25 to 60°C)  |                             |                            |
| Mounting Height         | 7.6ft to 13ft (2.3m to 4m)  |                             |                            |
| Recommended Accessories | AWT-3: Walk Tester for accurate installation<br>AVF-1: View Finder for proper installation<br>SIP-MINIHOOD: Sun and Snow Shield |                             |                            |

## SL-100TNRi / SL-200TNRi

### DUAL BEAM ACTIVE INFRARED PHOTOELECTRIC DETECTOR



- 100TNRi: 100ft detection range, 5 year battery life
- 200TNRi: 200ft detection range, 5 year battery life
- Dual beam detection
- IR communication for low battery signal
- IP65

| Model           | SL-100TNRi  | SL-200TNRi  |
|-----------------|---|---|
| Coverage        | 100ft. (30m)  | 200ft. (60m)  |
| Power Source    | 3.6 to 3.9V DC D size lithium batteries. Each transmitter & receiver: 2 units |   |
| Battery Life    | 5 Years   | 5 Years   |
| Current Draw    | Total: approx 500 uA<br>Transmitter: approx 200 uA<br>Receiver: approx 300 uA | Total: approx 600 uA<br>Transmitter: approx 300 uA<br>Receiver: approx 300 uA |
| Alarm Output    | Form C-Solid State Switch : 3.9VDC, 0.01A                                     |   |
| Operating Temp. | -4 to 140°F (-20 to 60°C)   |   |

## AX-100TFRi / AX-200TFRi

### DUAL BEAM ACTIVE INFRARED PHOTOELECTRIC DETECTOR (ADVANCED)



- 100TFRi: 100ft detection range
- 200TFRi: 200ft detection range
- Dual beam detection, 4ch selectable beam frequency
- D cell lithium batteries included, 3-5 year battery life
- A.G.C. (automatic gain control)
- IP55



| Model                 | AX-100TFRi                                      | AX-200TFRi                 |
|-----------------------|---|----------------------------|
| Coverage              | 100ft. (30m)                                    | 200ft. (60m)               |
| Beam Freq.            | 4 Channel                                       |                            |
| Power Input           | 3.6V, 13.0Ah LSH20 lithium battery (4 included) |                            |
| Battery Life          | 5 Years   | 3 Years                    |
| Current Draw          | 620uA [T:300uA<br>R:320uA]                      | 810uA [T:490uA<br>R:320uA] |
| Alarm Output          | Form C-Solid State Switch : 3.6VDC, 0.01A       |                            |
| Optional Heating Unit | HU-3, Local power required                      |                            |
| Operating Temp.       | -4 to 140°F (-20 to 60°C)                       |                            |
| Mounting Options      | Wall, Pole, AX-TW Series Enclosures             |                            |

## SL-350QFRI QUAD BEAM ACTIVE INFRARED PHOTOELECTRIC DETECTOR (PROFESSIONAL)



- 350ft detection range, quad beam detection
- 4ch selectable beam frequency
- D cell lithium batteries included, 4-8 year battery life
- Sniper viewfinder for easy alignment
- D.Q. circuit
- IP65



| Model                 | SL-350QFRI                                      |
|-----------------------|---|
| Coverage              | 350ft. (100m)                                   |
| Beam Freq.            | 4 Channel                                       |
| Power Input           | 3.6V, 13.0Ah LSH20 lithium battery (4 included) |
| Battery Life          | 4 Years   |
| Current Draw          | 745uA [T:420uA<br>R:325uA]                      |
| Alarm Output          | Form C-Solid State Switch : 3.6VDC, 0.01A       |
| Optional Heating Unit | HU-3, Local power required                      |
| Operating Temp.       | -4 to 140°F (-20 to 60°C)                       |
| Mounting Options      | Wall, Pole, AX-TW Series Enclosures             |

# Battery-Powered, Wireless Protection

## iSERIES DETECTION FEATURES

### Double-Layered Detection Patterns

Outdoor iSeries PIR detectors utilize Multiple Detection Pattern technology, where two double-layered detection patterns (upper and lower) have to be activated to generate an alarm condition. This reduces false alarms, particularly those caused by temperature changes, light reflection, and small animals.



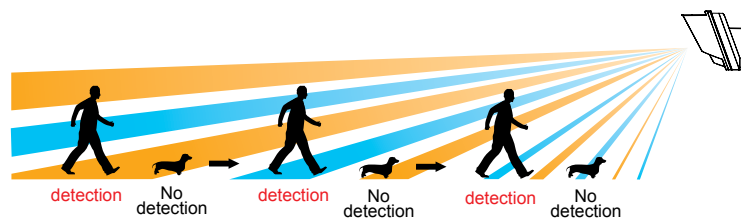
### Size Judging Function

The size judging function virtually eliminates false alarms caused by small animals and other moving objects, such as vehicles.



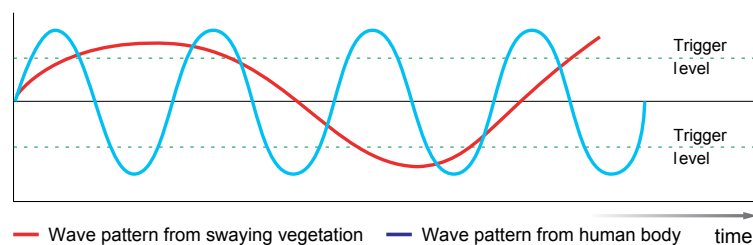
### Intelligent 'AND' Logic

By utilizing originally developed pyro-elements, it creates a configuration area consisting of 94 high density detection zones. The AND detection pattern technology also requires both detection areas to be simultaneously activated in order to generate an alarm condition, making it more resistant to false alarms caused by small nuisance animals or pets.



### Vegetation Sway Analysis Logic

For the HX high mount series, wave changes are monitored at all times and will automatically cancel signals caused by swaying grass when it determines the pattern of these distinctive wave changes.





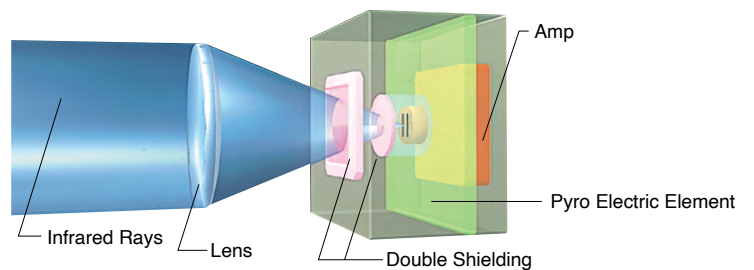
### SMDA Logic (Super Multi-Dimensional Analysis)

The SMDA is a digitally enhanced signal recognition logic that improves immunity against various noise factors, such as climate changes and vegetation sways, to drastically reduce false alarm rates.



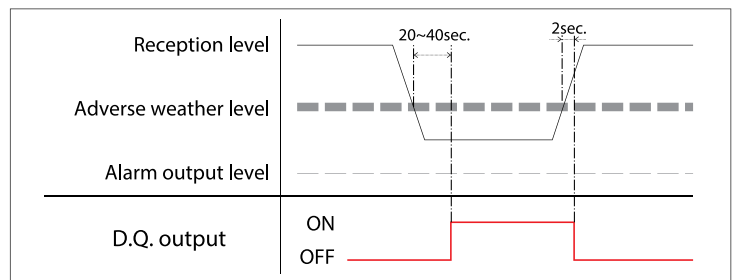
### Double Conductive Shielding

By using our double conductive shielding, false alarm causing visible light disturbance (car headlights, sunlight) and RFI can be blocked.



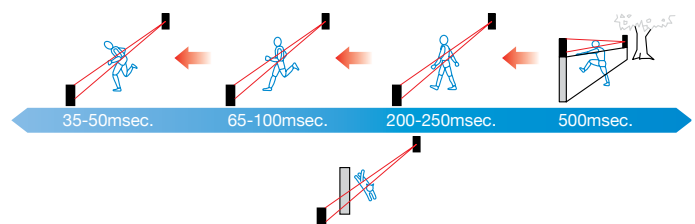
### D.Q. Output (Environmental Disqualification)

The D.Q. output will send a trouble signal when the beam strength is below acceptable levels (due to harsh weather conditions), for more than 20-40 seconds.



### Adjustable Beam Interruption Time

By using the beam interruption time potentiometer, it is possible to increase the time the beam must be broken in order to generate an alarm. This will reduce the chance of false alarms being caused by falling leaves, blowing debris, or animal movements within the protected area.





## CASE STUDY

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When a church in Georgia began feeling the effects of copper theft, the integrator consulted with the property's interior security and decided to once again turn to OPTEX for help. The church utilized both rooftop and ground level HVAC systems, with easy access to each. Because of labor and cost associated with wiring, along with the difficulty bringing power to the rooftops, the regional sales manager for OPTEX recommended the iSeries line of battery-powered, wireless PIRs.

The iSeries detectors offered spot and curtain protection for all HVAC units while also securing all access points to each. For future consideration, the addition of the wireless feature also allows the integrator to relocate and easily adjust the detectors based on changing security needs.

With this system in place, copper and other related thefts have been eliminated and the end user can now respond quickly before any damage is done.



# Battery-Powered, Wireless Protection

## TOTAL SECURITY SOLUTIONS

### Rooftop / Copper Theft Protection



**SIP-3020WFI**  
100' x 65' Outdoor PIR designed to activate and enhance CCTV systems / applications



**inovonics**  
EN5040T Repeater  
ACC650 Enclosure  
(When mounting repeater outdoors)



**BX-80NRI**  
80' x 3' Low mount, battery-powered, outdoor dual PIR detector



**BXS-RAMI**  
Up to 80' total coverage (40' per side)  
Outdoor quad-PIR boundary detector  
Independently adjustable range & sensitivity



**inovonics**  
Receivers:  
EN4232MR  
EN4216MR  
EN4204R  
Honeywell EN7290  
Bosch ENKIT  
Interlogix EN7286NX



**VXS-RAMI / VXS-RDAMI**  
40' by 90° detection coverage  
Wide angle outdoor PIR (RAMI) or dual tech (RDAMI)  
With anti-masking



**VXI-RDAMI**  
40ft by 120° detection range, high or low mount  
outdoor dual tech PIR & microwave technology  
with anti-masking



**AX-TW200M**  
6'6" Single Sided, Wall Mount Beam Enclosure

**AX-TW200**  
6'6" Double Sided, Free Standing Beam Enclosure



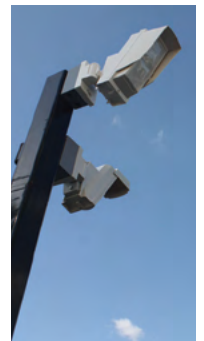
**AX-TW200**  
6'6" Double Sided, Free Standing Beam Enclosure



**SL-350QFRI**  
iSeries Battery-Powered, Wirefree Photobeams

**SL-350QFRI**  
iSeries Battery-Powered, Wirefree Photobeams

### Easily Deployable Spot Detection



**HX-40RAMI**  
40' x 50' High mount, battery-powered, outdoor dual PIR detector

# CONTACT US

***From residential to critical infrastructure, OPTEX has the right solution for any application & environment.***

With indoor and outdoor detection options for every threat level, OPTEX provides you with flexibility and choice based on your perimeter security needs. Since its founding over 30 years ago, OPTEX has established a worldwide reputation for quality, innovation, and technical excellence. Our products will always represent an investment in performance, and long term satisfaction.

## NOTES

## COMMON iSERIES ACCESSORIES



### UNIVERSAL WIRELESS RECEIVERS

EN4232MR  
EN4216MR  
EN4204R



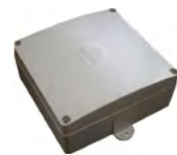
### PANEL SPECIFIC WIRELESS RECEIVERS

Honeywell EN7290  
Bosch ENKIT  
Interlogix EN7286NX



### EN5040T REPEATER

High power repeater with transformer, intelligently amplifies transmission from any EchoStream series transmitter in an iSeries detector



### ACC650 ENCLOSURE

General purpose, all-weather plastic enclosure used as an outdoor housing for Inovonics wireless repeaters



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# iSERIES SPECIFICATION GUIDE



|                                   | EX-35RI   | CX-702RI  | FTN-RAMI  | BXS-RAMI  | BX-80NRI   | VXS-RAMI  | VXS-RDAMI   | WXS-RAMI  | WXS-RDAMI   | QXI-RDTI  |
|-----------------------------------|---|---|---|---|--|---|---|---|---|---|
|                                   |  |  |  |  |  |  |  |  |  |  |
| Detection Method                  | PIR   | PIR   | PIR   | PIR   | PIR  | PIR   | PIR/Microwave   | PIR   | PIR/Microwave   | PIR/Microwave   |
| Coverage                          | 35 x 35ft. 85° Wide<br>or<br>55ft. x 5.5ft. Long                                    | 70 x 70ft. 85° Wide<br>or<br>150ft. x 8ft. Long                                     | 16.5ft. x 3.3ft.<br>or<br>6.7ft. x 3.3ft.   | 80ft (40ft each side)<br>2 zones each side<br>180° narrow                           | 3ft x 80ft<br>(40ft on each side)  | 40ft by 90°   | 40ft by 90°   | High mount 30ft.<br>Low mount 8ft. - 40ft.<br>180° Wide                           | High mount 30ft.<br>Low mount 8ft. - 40ft.<br>180° Wide                           | 40ft 120° wide  |
| Mounting Height                   | 4ft - 8ft<br>or<br>2ft - 4ft. Pet Alley   | 5ft. - 12ft.  | 2.7ft. - 4ft.   | 2.7ft. - 4ft.   | 2.7ft. - 4ft.  | 2.7ft. - 4ft.   | 2.7ft. - 4ft.   | High mount 6.8ft.<br>Low mount 2.7ft. - 4ft.                                      | High mount 6.8ft.<br>Low mount 2.7ft. - 4ft.                                      | Multi Level 7.3ft -<br>8.1ft<br>Pet Alley 2.7ft. - 4ft.                           |
| Double-Layered Detection Patterns | -   | -   | ✓   | ✓   | ✓  | ✓   | ✓   | ✓   | ✓   | -   |
| Intelligent 'AND' Logic           | -   | -   | -   | ✓   | -  | -   | -   | ✓   | ✓   | ✓   |
| Pet Tolerant                      | Birds & rodents   | -   | ✓   | ✓   | ✓  | ✓   | ✓   | ✓   | ✓   | ✓   |
| SMDA Logic                        | -   | -   | ✓   | ✓   | -  | ✓   | ✓   | ✓   | ✓   | ✓   |
| Immunity Switch                   | -   | -   | -   | -   | -  | -   | STD/Immunity (microwave)  | Normal/Immunity (PIR)   | Normal/Immunity (PIR/Microwave)   | -   |
| Double Conductive Shielding       | -   | ✓   | ✓   | ✓   | ✓  | ✓   | ✓   | ✓   | ✓   | ✓   |
| Sensitivity Adjustment            | -   | -   | STD/LOW   | H / M / L   | H / M / L  | H / M / L   | H / M / L   | H / M / L   | H / M / L   | Super H/H/M/L   |
| Temperature Compensation Logic    | -   | ✓   | ✓   | ✓   | ✓  | ✓   | ✓   | ✓   | ✓   | ✓   |
| Pulse Count                       | 2 / 4   | 2 / 4   | 2   | 2   | 2  | 2   | 2   | 1/2   | 1/2   | 2   |
| Power Supply                      | 3-9 VDC; 3V<br>Lithium included   | 3-9 VDC; 3V<br>Lithium included   | 3-9 VDC; 3V<br>Lithium included   | 3-9 VDC; 3V<br>Lithium included   | 3-9 VDC; 3V<br>Lithium included  | 3-9 VDC; 3V<br>Lithium included   | 3-9 VDC; 3V<br>Lithium included   | 3-3.6 VDC; 3V<br>Lithium included   | 3-3.6 VDC; 3V<br>Lithium included   | 3-3.6 VDC; 3V<br>Lithium included   |
| Current Consumption               | 25 µA (standby)<br>80 mA (test, LED on)   | 25 µA (standby)<br>80 mA (test, LED on)   | 17 µA (standby)<br>73 mA (test, LED on)   | 24 µA (standby)<br>73 mA (max.)   | 24 µA (standby)<br>73 mA (max.)  | 19 µA (standby)<br>74 mA (max.)   | 27 µA (standby)<br>78 mA (max.)   | 33 µA (standby)<br>76 mA (max.)   | 33 µA (standby)<br>76 mA (max.)   | 25 µA (standby)<br>81 mA (max.) at 3 VDC  |
| Alarm Output                      | Form C solid state<br>10V DC 0.01A max.   | Form C solid state<br>10V DC 0.01A max.   | Select-Solid N.C./N.O.<br>State Switch 10 VDC<br>0.01A (max)                        | Form C solid state<br>10V DC 0.01A max.   | Form C solid state<br>10V DC 0.01A max.  | Select-Solid N.C./N.O.<br>State Switch 10 VDC<br>0.01A (max)                      | Select-Solid N.C./N.O.<br>State Switch 10 VDC<br>0.01A (max)                      | Solidstate switch<br>10V DC 0.01A max.<br>N.C./N.O. are<br>selectable             | Solidstate switch<br>10V DC 0.01A max.<br>N.C./N.O. are<br>selectable             | N.C./N.O.<br>switchable<br>solid state switch<br>3V DC 0.01A max.                 |
| Tamper Output                     | Form C  | Form C  | N.C./N.O. switchable<br>solidstate switch<br>10V DC 0.01A max.                      | Form C  | Form C   | N.C./N.O. switchable<br>solidstate switch<br>10V DC 0.01A max.                    | N.C./N.O. switchable<br>solidstate switch<br>10V DC 0.01A max.                    | Solidstate switch<br>10V DC 0.01A max.<br>N.C./N.O. are<br>selectable             | Solidstate switch<br>10V DC 0.01A max.<br>N.C./N.O. are<br>selectable             | N.C./N.O.<br>switchable<br>solidstate switch<br>3V<br>DC 0.01A max.               |
| International Protection          | -   | -   | IP55  | IP55  | IP55   | IP55  | IP55  | IP55  | IP55  | IP54  |
| Operating Temperature             | -4 to +122 °F   | -4 to +122 °F   | -4 to +140°F  | -4 to +122°F  | -4 to +122°F   | -4 to +140°F  | -4 to +113°F  | -4 to +113°F  | -4 to +113°F  | -40 to +113°F   |
| Environmental Humidity            | 95% max.  | 95% max.  | 95% max.  | 95% max.  | 95% max.   | 95% max.  | 95% max.  | 95% max.  | 95% max.  | 95% max.  |
| Dimensions (H x W x D in)         | 4.5 x 2.8 x 3   | 5.5 x 3.9 x 2.7   | 6.1 x 2.8 x 1.7   | 7.8 x 3.6 x 3.9   | 9.3 x 2.2 x 5  | 7.85 x 3.21 x 4.3   | 7.85 x 3.21 x 4.3   | 7.93 x 3.61 x 4.89  | 7.93 x 3.61 x 4.89  | 5.69 x 3.07 x 3.28  |

|                                   | HX-40RAMI                            | HX-80NRAMI                           | SIP-3020WFI / SIP-4010WFI / SIP-404WFI        |
|-----------------------------------|--------------------------------------|--------------------------------------|---|
| Detection Method                  | PIR                                  | PIR                                  | PIR   |
| Coverage                          | 40 x 50ft                            | 80 x 6.5ft narrow                    | 100 x 65ft / 130 x 33ft / 130 x 13ft          |
| Mounting Height                   | 8 - 10ft                             | 8 - 10ft                             | 7.6 - 13ft                                    |
| Double-Layered Detection Patterns | —                                    | —                                    | —   |
| Intelligent 'AND' Logic           | ✓                                    | ✓                                    | —   |
| Pet Tolerant                      | ✓                                    | ✓                                    | —   |
| SMDA Logic                        | —                                    | —                                    | —   |
| Immunity Switch                   | STD/Immunity                         | STD/Immunity                         | —   |
| Double Conductive Shielding       | ✓                                    | ✓                                    | ✓   |
| Sensitivity Adjustment            | H / M / L                            | H / M / L                            | Far: SH / H / M / L Near: SH / H / M / L      |
| Temperature Compensation Logic    | ✓                                    | ✓                                    | —   |
| Pulse Count                       | 2                                    | 2                                    | —   |
| Power Supply                      | 3-7VDC; 3V Lithium Included X2       | 3-9VDC; 3V Lithium Included X2       | 3.6V, 13.0Ah LSH20 lithium battery (included) |
| Current Consumption               | 39 µA (standby) 74 mA (max)          | 39 µA (standby) 74 mA (max)          | 49 µA (standby) 75 mA (max)                   |
| Alarm Output                      | Form C solid state 10V DC 0.01A max. | Form C solid state 10V DC 0.01A max. | N.C. 10VDC, 0.01A max N.O. 10VDC, 0.01A max   |
| Tamper Output                     | Form C                               | Form C                               | N.C. 10VDC, 0.01A max                         |
| International Protection          | IP55                                 | IP55                                 | Main Unit: IP65 Chassis: IP55                 |
| Operating Temperature             | -4 to +140 °F                        | -4 to +140 °F                        | -13 to +140°F                                 |
| Environmental Humidity            | 95% max.                             | 95% max.                             | 95% max.                                      |
| Dimensions (H x W x D in)         | 8.07 x 3.9 x 10.5                    | 7.8 x 3.7 x 11.25                    | 9 x 4 x 10.5                                  |

|   | SL-350QFRI                                       | SL-100TNRI                                       | SL-200TNRI                                       | AX-100TFRI                                       | AX-200TFRI                                       |
|---|--|--|--|--|--|
| Detection Method                          | AIR  | AIR  | AIR  | AIR  | AIR  |
| Outdoor detection range Beam              | 350ft Quad                                       | 100ft Twin                                       | 200ft Twin                                       | 100ft Twin                                       | 200ft Twin                                       |
| Beam blocking ratio 4ch, Selectable freq. | 99% ✓  | 99% ✓  | 99% ✓  | 99% ✓  | 99% ✓  |
| Alignment Angle                           | +/- 90° H, +/- 5° V                              | +/- 90° H, +/- 5° V                              | +/- 90° H, +/- 5° V                              | +/- 90° H, +/- 5° V                              | +/- 90° H, +/- 5° V                              |
| LED Indicator                             | 4step LED indicator                              | 4step LED indicator                              | 4step LED indicator                              | 4step LED indicator                              | 4step LED indicator                              |
| Monitor Jack for Alignment                | ✓  | ✓  | ✓  | ✓  | ✓  |
| Automatic Gain Control                    | No   | No   | No   | No   | No   |
| Lightening Protection                     | Yes, Wirefree                                    | Yes, Wirefree                                    | Yes, Wirefree                                    | Yes, Wirefree                                    | Yes, Wirefree                                    |
| Environment DQ                            | ✓  | ✓  | ✓  | ✓  | ✓  |
| Alarm Output                              | Form C   | Form C   | Form C   | Form C   | Form C   |
| Tamper                                    | ✓  | ✓  | ✓  | ✓  | ✓  |
| Power Supply                              | 3.6V 13.0Ah LSH20 lithium batteries (4 included) | 3.6V 13.0Ah LSH20 lithium batteries (4 included) | 3.6V 13.0Ah LSH20 lithium batteries (4 included) | 3.6V 13.0Ah LSH20 lithium batteries (4 included) | 3.6V 13.0Ah LSH20 lithium batteries (4 included) |
| Current Draw (Peak)                       | 745µA  | 500µA  | 600µA  | 620µA  | 810µA  |
| Anti-Frost Design                         | ✓  | ✓  | ✓  | ✓  | ✓  |
| Optional Heating Unit                     | HU-3 Requires local power                        | HU-3 Requires local power                        | HU-3 Requires local power                        | HU-3 Requires local power                        | HU-3 Requires local power                        |
| International Protection                  | IP65   | IP55   | IP55   | IP55   | IP55   |
| Operating Temperature                     | -4 to +140°F                                     | -4 to +140 °F                                    | -4 to +140°F                                     | -4 to +140 °F                                    | -4 to +140°F                                     |
| Environmental Humidity                    | 95% max.   | 95% max.   | 95% max.   | 95% max.   | 95% max.   |
| Dimensions (H x W x D in)                 | 17.9 x 3.3 x 5.4                                 | 11.6 x 2.7 x 4.6                                 | 11.6 x 2.7 x 4.6                                 | 8.5 x 3.5 x 6.4                                  | 8.5 x 3.5 x 6.4                                  |