R142-i3BN IR-Enabled Badge Tag

The infrared-enabled R142-i3BN provides room-level IR location accuracy and user-initiated status notifications while tracking personnel and their interaction with tagged assets.

Features & Benefits

- Encoded radio transmissions at 433 MHz
- Reports IR location with room-level accuracy
- Clip to clothing or hang on a lanyard
- Flat surface for adhesive mountof HID-type card on the badge face
- Three buttons for status messaging
- Audible buzzer provides user feedback

The 433 MHz R142 IR Badge Tag is a battery-powered RF transmitter that can be clipped onto an article of clothing or worn around the neck with a lanyard. Every tag broadcasts its unique ID and a status message at a periodic rate.

R142 IR Badge Tags are specifically designed for personnel tracking. When used with strategically-placed RF Code IR Room Locators, the badge tag transmissions can be mapped in real-time to track personnel movement, including entrance and exits from controlled areas. RF Code's patented communication protocols support high tag densities that allow large populations of tags to be deployed in confined spaces.

R142 IR Badge Tags are equipped with on-board infrared (IR) and motion sensors. This family of tags is designed to be deployed in concert with RF Code's IR Room Locators. IR-enabled tags monitor their environment for incoming IR signals and periodically report both their own unique ID and IR location codes. Motion activation allows the tag scan for incoming IR signals at a faster rate when in motion. This provides a method for reporting real-time locations with room-level accuracy.

The badge enclosure is impact resistant, splash resistant and temperature stable, with a read range up to 300 feet. These tags operate with a low duty cycle that translates to long battery life (typically 3 years).

RF Code R142-i3BN IR-Enabled Badge Tag Specifications

OPERATION	
Operating Frequency	433.92 MHz
Group Code & Tag ID Codes	> 540,000 unique IDs per Group Code
Typical Transmission Range	Up to 300 ft
Radiated Emissions	71.8 dBuV/m at 3 meters (maximum)
Modulation	ASK
Stability	Saw stabilized

ENCLOSURE	
Case Length	2.232 in (56.67 mm)
Case Width	3.949 in (100.30 mm)
Case Height	0.280 in (7.11 mm)
Case Weight (with tag)	1.40 oz (39.68 g)
Construction	Injection-molded polycarbonate enclosure
Durability	Tough, impact resistant and temperature stable

ENVIRONMENTAL	
Operating Temperature	-20° C to +70° C
Storage Temperature	-40° C to +80° C
Operating Humidity	< 95% RH non-condensing; not recommended for outdoor applications
Sealing	Splash resistant

POWER	
Battery Type	Lithium CR2032 coin cell
Smart Tag Feature	Low battery indication
Battery Life	> 3 years *

IR COMPATIBILITY	
Rack Locators	RF Code A740 with Series 2 Protocol
Room Locators	RF Code A750 with Series 2 Protocol

*The tag operates with a very low duty cycle that translates to long battery life. Based on the ratings and specifications from the battery manufacturers, RF Code develops usage models to calculate the life of the active RFID Tags. Like all models, there are assumptions and approximations involved. The values are to be taken as engineering estimates - not guaranteed performance. Exposure to extreme temperatures will shorten the battery life. RF Code warrants all tags to be free from defects in materials and workmanship for a period of 1 year.

RFCODE
9229 Waterford Centre Blvd. ♦ Suite 500
Austin, TX 78758
Tel: 512.439.2200 ♦ Fax: 512.439.2199
sales@rfcode.com ♦ http://www.rfcode.com

02/22/2012