

State of the artRFN400 wireless tag offers multiple configurationoptionsto support customer's changing asset tracking requirements. With its small footprint and low price it provides best solution for multiple tracking scenarios.

Outstanding Features

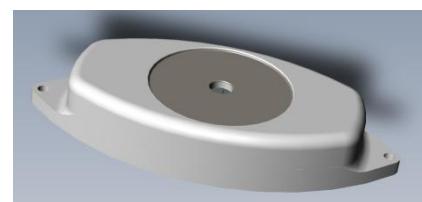
- 433Mhz Radio Frequency
- Highly configurable solution
- Unique proximity magnetic field configuration before and after deployment
- Small size lowest cost solution
- Low power solution for long battery life
- Unmatched transmission range
- Supporting motion, angle change, tamper detection& NO/NC external sensors
- Several mounting options
- Short transmission messages for high tag densities

The RFN400T asset tag is a battery powered active RFID tag which is attached to the items being tracked, located and identified. It is a low cost solution offered in a small footprint to provide an economical solution for a variety of tracking scenarios. It can be configured over the air to support different customer's requirements, with unique proximity magnetic field detection. This mechanism enables remote activation and detection of moving tracked items. This mechanism enables over the air configuration by the customer before and after tag deployment, offering a new level of operation flexibility. Short transmission messages support high tag density deployments. The RFN400T optimized design enables the integration of several sensors to support motion, angle change, tamper detection& NO/NC external sensors

The RFN400T supports unmatched transmission ranges of up to 500m. Very low power implementation supports up to 4 years of operation. The RF tag is transmitting in an ISM 433 MHz band radio frequency. On request it can be configured to support 315/868/915 MHz frequency bands for maximal flexibility. The tag supports several mounting options to offer connection flexibility to the tracked items. It can be customized to fit into different enclosures.



Asset TAG casing



Agro TAG casing



Sensors Probe



RFN400 Wireless TagFamily

Tag Specifications

	Parameter	Remarks
Communication		
Transmit		
UHF Frequency	ISM 433 MHz band	Frequency can be recalibrated
Data rates	FSK, 9.6 Kbps	
Receive		
Frequency	125Khz	Proximity magnetic field detection
Power		
Power source	Lithium coin Battery	
Supply voltage	1.9 V up to 3.6 V	
power down current	< 2µA	Most of the time the tag is in power down to save battery live
Tag expected live	Up to 4Years	With Tadiran1.6 A (up to 3 years with CR2477)
Physical		
Weight	30g (H-L tags)	Battery 1 A
Size	H tag L Tag Agro version	43x35x20 mm 65x35x11 mm 65x38x25 mm (approx)
Operating temperature	-40 to +85 °C	For Tadiran Batteries (CR2477 up to -20 °C)
Sensors		
	Accelerometer	Programmable: movement detection/ angle change, etc
	NO/NC cable	For external dry contact sensors
	Push Bottom	for example for panic alert
	Magnetic SW	Door open/close; Also used for tamper detection
	Temperature	Based on DS18B20 probe, Measure range -55°C to +125°C • ±0.5°C Accuracy from -10°C to +85°C
	Temperature Humidity	Based on SI7021 sensor from Silicon Labs Precision Relative Humidity ± 3% RH (max), 0–80% RH Temperature Sensor Accuracy ±0.4 °C (max), -10 to 85 °C
	Temperature Humidity and atmospheric pressure	Based on Bosch BME2800 Precision Relative Humidity ± 3% RH (max), 0–100% RH Temperature Sensor Accuracy ±0.5 °C (max) @ 25°C, -40 to 85 °C Atmospheric pressure +/-1hPa 0–65°C, 300 to 1100 hPa
	Analog inputs	2x12 Bits ADC measuring 0-5V providing 5V power supply to the external sensors
	Distance	20-2000mm intended for smart garbage, water measure, etc

Other sensors can be added on request



RFN400 Wireless TagFamily

Regulatory notice:

The FCC Wants You to Know

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- a) Reorient or relocate the receiving antenna.
- b) Increase the separation between the equipment and receiver.
- c) Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- d) Consult the dealer or an experienced radio/TV technician.

FCC Warning (Modification statement)

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Keep at least 20 cm away from the sensor when it works.

