State of the art RFN433-SEN wireless tag offers multiple configuration options to 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 RFN433-SEN family 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 RFN433-SEN optimized design enables the integration of several sensors to support motion, angle change, tamper detection & NO/NC external sensors

Asset TAG casing

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.

Support AES128, the User can change the default Key

Agro TAG casing

Sensors Probe

Tag Specifications

	Parameter	Remarks
Communication 2 ways, Transmit / Receive		
Range	More than 500 m	Open fields
UHF Frequency	ISM 433 MHz band	Frequency can be configurated to operate in 8 different channels
power	5/8/10 dbm	Default value 10 dBm
Data rates	FSK, 9.6 Kbps	+/-20Khz deviation
Power		
Power source	Lithium coin Battery	
Supply voltage	1.9 V up to 3.6 V	
power down current	< 2 µA	Most of the time the tag is in power down to save battery live
Tag expected live	Up to 4 Years	With Tadiran 1.6 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
	IO	2 external Inputs 30-0V or dry contact, 2 Open collector outputs
	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 Bosh 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	20-6000mm intended for smart garbage, water measure, etc
	CO2	C02 up to 4%, Temperature and Humidity based on Sensirion
	Particles	To detect contamination based on Honewell particle sensor
	UART	Data communication

Other sensors can be added on request