

State of the art RFN433-SEN wireless tag offers multiple configuration options to support cold supply chain requirements. With its small footprint . low power and long range, RFN433-SEN provides best solution for asset tracking. Support multiple third-party asset tracking software platforms as well as ERP interface.

Outstanding Features

- 433Mhz Radio Frequency
- Supports both Mesh and Start topologies allowing to operate in harsh environments and longer communication ranges.
- Highly configurable solution
- Small size lowest cost solution
- Low power solution for long battery life up to 5-7 years
- Unmatched transmission range
- Supporting motion, angle change, tamper detection & NO/NC external sensors
- Short transmission messages for high tag densities

The RFN433-SEN wireless sensor is a battery powered active tag which is attached to the items being monitored , 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.

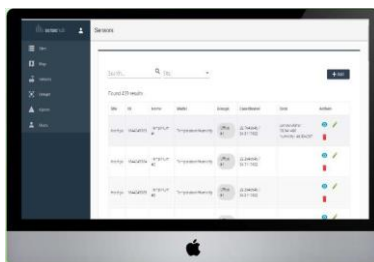
The RFN433-SEN supports unmatched transmission ranges of up to 1km. Very low power implementation, supports up to 5 years of operation.

The RF tag is transmitting in an ISM 433 MHz band radio frequency. Up On request It can be configured to support 315/868/915 MHz frequency bands for maximal flexibility.

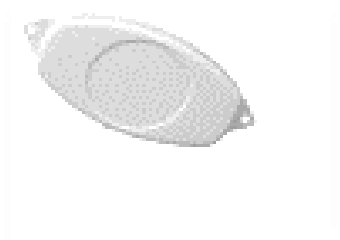
The tag supports multiple mounting options to offer connection flexibility to the tracked items.

It can be customized to fit into different enclosures.

Support AES256, the User can change the default Key



Supply Chain management software



RFN Wireless Tag



RFN433-SEN Wireless Tag

Tag Specifications

	Parameter	Remarks
Communication 2 ways, Transmit / Receive		
Range	More than 1000m	Open fields 6000m
UHF Frequency	ISM 433 MHz band	Frequency can be configurated to operate in 8 different channels
power	5/10/14 dbm	Default value 10 dBm
Power		
Power source	Lithium coin Battery	
Supply voltage	1.9 V up to 3.6 V	
power down current	< 2 μ A	Most of the time the tag is in power down to save battery live
Tag expected live	~ 5 Years	With 1.6 A (up to 3 years with CR2477)
Physical		
Weight	30g (H-L tags)	Battery 1 A
Size	H / L Tag Agro version	43x35x20 mm / 65x35x11 mm 65x38x25 mm (approx)
Operating Temperature	-40 to +85 °C	
Sensors		
RFN433-SEN-MOV	Accelerometer	Programmable options: movement detection/ angle change, etc
RFN433-SEN-IO	IO	2 external Inputs 30-0V or dry contact, 2 Open collector outputs
RFN433-SEN-PB	Push Bottom	for example for panic alert
RFN433-SEN-IO	Magnetic SW	Door open/close; Also used for tamper detection
RFN433-SEN-TEMP	DS18B20 Temperature probe	Measure range -55°C to +125°C • $\pm 0.5^\circ\text{C}$ Accuracy from -10°C to +85°C
RFN433-SEN-HR	Temperature Humidity	Precision Relative Humidity $\pm 3\%$ RH (max), 0–80% RH Temperature Sensor Accuracy $\pm 0.4^\circ\text{C}$ (max), -10 to 85 °C
RFN433-SEN-HRP	BME2800 Temperature Humidity and atmospheric pressure	Precision Relative Humidity $\pm 3\%$ RH (max), 0–100% RH Temperature Sensor Accuracy $\pm 0.5^\circ\text{C}$ (max) @ 25°C, -40 to 85 °C Atmospheric pressure $\pm 1\text{hPa}$ 0-65°C, 300 to 1100 hPa
RFN433-SEN-ADC	Analog inputs	2x12 Bits ADC measuring 0-5V providing 5V power supply to the external sensors
RFN433-SEN-DIS	Distance	20-4000mm intended for smart garbage, liquid level measure, Parking, etc
RFN433-SEN-CO2	CO2 sensor	CO2 up to 4%, Temperature and Humidity
RFN433-SEN-PART	Particles	To detect contamination based on Honeywell particle sensor
RFN433-D-xx	Data communication	Data communication interface options xx={UART-RS232-RS485-USB}

Other sensors can be added on request

