



Track **Sense** Trace

Enhance traceability with **Batteryless UHF RFID sensors**

In today's complex supply chains, knowing the location of your goods is just the first step. To truly ensure product quality and safety, you need to understand the environmental conditions your assets have been exposed to throughout their journey. Temperature and humidity play a critical role in the integrity of many products, from perishable foods and pharmaceuticals to sensitive materials.



Sensory RFID: a transformative solution

Product integrity hinges on accurate temperature and humidity monitoring. Traditional methods like manual checks or battery-powered IoT solutions are often inconvenient and costly. Battery-less sensory RFID offers a compelling alternative, enabling precise, real-time, and cost-effective environmental tracking.

Benefits :

Enhanced traceability | Proactive alerts | Conditions monitoring

AS321X chip family: Enhancing RFID Capabilities

The AS321X chip family from Asygn is the heart of the solution and is a game-changer in this field. This battery-free, EPC Gen2 compliant RFID chip is designed specifically for sensing applications, with a key focus on temperature, relative humidity, light or deformation.

- Battery free
- RFID EPC Gen 2 compatible
- Monitor temperature from -40 to 125°C
- Compatible with a wide range of existing RAIN RFID infrastructure and readers.
- Sensor data is easily retrieved through standard RFID read commands.

How does it work?



1. RFID Tags with Integrated AS3213T Chip

Real-time temperature data and unique identification for each item.

2. Strategically Positioned RFID Readers and antennas

Installed at critical checkpoints such as loading docks, warehouses, and receiving areas.

3. Data Management System

A centralised data management system, either cloud-based or on-premise, provides a secure repository for storing temperature data.