

Passive temperature and humidity sensor tag

TG-301-1

- ◆ Passive sensor to sense temperature and humidity without battery
- ◆ Low-cost maintenance-free sensors, no peripheral circuits, detectors and microcontrollers
- ◆ Creating a new market to provide solutions for environments where sensors are currently unavailable
- ◆ Built-in pressure sensor for extended application scenarios



Application Scenarios

- I . Industry
- II. Supply Chain Management
- III. Ward Care
- IV. Hospital



I . Control moisture content to achieve consistency of final product

- To solve the problem that traditional sensors can not be embedded effectively
- Sensor label embedded material sensing humidity
- Control the moisture content of materials to achieve product consistency
- Provide better quality control in production and transportation

II. Real-time monitoring of transport products to achieve traceability throughout the process

- A low-cost sensor with UHF RFID single grade management
- Real-time temperature induction in cold chain applications, temperature accuracy up to $\pm 0.3^{\circ}\text{C}$, real traceability

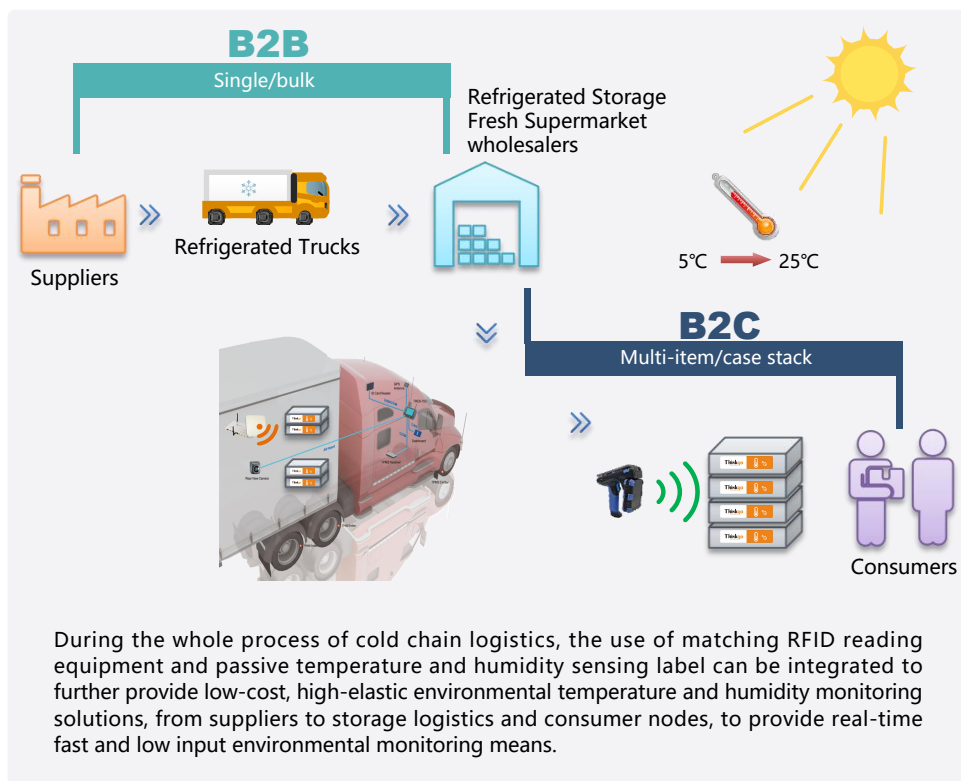
III. Effective improvement of patient and family satisfaction with nursing staff

- Sensor label embedded in diapers, used in the care of people who can not take care of themselves
- Regular identification of diaper humidity, manual detection of whether to replace
- To improve the evaluation satisfaction of nursing staff effectively

IV. Realize automatic control, adjust the temperature and humidity of hospital reasonably

- Assist maintenance staff to adjust indoor temperature and humidity environment
- To meet the patient's recovery temperature and humidity requirements and to maintain a comfortable public area
- Energy saving and emission reduction, optimizing medical experience and comforting patients' impetuous mood

Product Profile



Changes in antenna impedance caused by changes in environment



Chip automatic tuning impedance and antenna Impedance matching

Working Principle

Specification Parameters

Product model	TG-301-1
Label Size	96 mm×22 mm
Compliance Standard	EPCglobal Gen2, ISO/IE 18000-6C
Operating Frequency	860~960 MHz
Operating model	Passive
Chip Lifetime	Write 10,000 times, save data for 10 years
ESD Protection	Maximum V 1,750
Use Requirements	Operating temperature/humidity: -40~85°C / 20%~80%
	Storage temperature/humidity: 20~30°C / 20%~60%
	Waterproof for handling and use, no violent impact, no extrusion or bending of chip parts

