IEi® HF RFID TAG
Intelligent HF RFID Sensor Tag/Data Logger

New

Features

- Support temperature, vibration, ambient light, humidity, GPS data logging
- All-in-one design: built-in HF RFID sensor, data logger and USB 2.0 Disk
- Maximum storage: 134 million of data logging.
- 13.56 MHz RFID, ISO15693 RF air protocol
- Design for long term data recording
- Fast and efficient wireless RFID for reading out the instant data
- Support time-stamp
- Configurable duration from 1 second to 12 hour for one record

Specifications

Model Number	RFID-TP-D-ST-R10	RFID-VB-D-ST-R10	RFID-AL-D-ST-R10	RFID-HT-D-ST-R10	RFID-GPS-D-ST-R10	RFID-STP-D-ST-R10	RFID-TP-N-ST-R10
Function	Temperature sensor tag plus data logger	Vibration sensor tag plus data logger	Ambient light sensor Ttag plus data logger	Humidity and temperature sensor tag plus data logger	GPS sensor tag plus data logger	Slim RFID temperature sensor plus data logger	RFID temperature sensor tag
Application	Frozen food Environment monitor	Transportation quality Machine abnormality	Environment monitor	Environment monitor	Transportation tracking	Frozen food Environment monitor	Frozen food Environment monitor
Datalogger	Yes	Yes	Yes	Yes	Yes	Yes	No
Normal Used Range	From -20°C to 60°C	From -20°C to 60°C	From -20°C to 60°C	From -20°C to 60°C	From -20°C to 60°C	From -20°C to 60°C	From -20°C to 60°C
Accuracy	0.5°C (max) from 0°C to +65°C 1.0°C (max) from –40°C to +125°C	Full scale ±8g Output data rate 50Hz Max. resolution 3.9mg	Full scale 16000 LUX Resolution ±4 LUX	Relative Humidity ±2%, From 0% to 100% Temperature ±0.2°C (-40°C to 125°C)	<3m	0.5°C (max) from 0°C to +65°C 1.0°C (max) from –40°C to +125°C	0.5°C (max) from 0°C to +65°C 1.0°C (max) from - 40°C to +125°C
Max Storage	134,217,724 points (4GB)	134,217,724 points (4GB)	134,217,724 points (4GB)	134,217,724 points (4GB)	67,108,862 points (4GB)	3423 points (107KB)	1 point
Time stamp	Yes	Yes	Yes	Yes	Yes	Yes	NO
Record Interval	1, 2, 5, 10, 15, 30 sec 1, 2, 5, 10, 15, 30 min 1, 2, 3, 6, 12 hr	50Hz	1, 2, 5, 10, 15, 30 sec 1, 2, 5, 10, 15, 30 min 1, 2, 3, 6, 12 hr	1, 2, 5, 10, 15, 30 sec 1, 2, 5, 10, 15, 30 min 1, 2, 3, 6, 12 hr	1, 2, 5, 10, 15, 30 sec 1, 2, 5, 10, 15, 30 min 1, 2, 3, 6, 12 hr	1, 2, 5, 10, 15, 30 sec 1, 2, 5, 10, 15, 30 min 1, 2, 3, 6, 12 hr	NA
Indicator (LED)	Short flash once: recording	Short flash once: recording	Short flash once: recording Short flash twice: error message	Short flash once: recording	Short flash once: recording	Short flash once: recording	Short flash once: recording NA
PC Interface			USB 2.0 mass storage device				NA
RFID	ISO 15693, 13.56MHz	ISO 15693, 13.56MHz	ISO 15693, 13.56MHz	ISO 15693, 13.56MHz	ISO 15693, 13.56MHz	ISO 15693,13.56MHz	ISO 15693,13.56MHz
Power Supply	4.0 to 5.5 VDC	4.0 to 5.5 VDC	4.0 to 5.5 VDC	4.0 to 5.5 VDC	4.0 to 5.5 VDC	4.0 to 5.5 VDC	NA
Battery	Battery pack AA by 4	Battery pack AA by 4	Battery pack AA by 4	Battery pack AA by 4	Battery pack AA by 4	20mAh film battery inside	N/A
Water Proof	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Cerification	FCC CLASS A	FCC CLASS A	FCC CLASS A	FCC CLASS A	FCC CLASS A	FCC CLASS A	FCC CLASS A
Dimensions (L x W x H)	12 cm x 8 cm x 3 cm	12 cm x 8 cm x 3 cm	12 cm x 8 cm x 3 cm	12 cm x 8 cm x 3 cm	12 cm x 8 cm x 3 cm	9.2 cm x 6.6 cm x 0.2 cm	9.2 cm x 6.6 cm x 0.1 cm

HF RFID Sensor Tag Plus Data Logger

The HF RFID tag series is designed for long-term temperature, vibration, ambient light, humidity and GPS recording. It uses an SD card as a mass storage media which can continually store 134 million points (four gigabytes for a file) of temperature when using continuous power (such as using USB power adapters). If continuous power is not available, it can use a one time battery case or a rechargeable battery bank which may support one week to one month recording depending on the recording duration and the type of the battery. The recording period can be configured from one second to twelve hours for one recording event. Recording data is easily to be read from the USB port. The data stored on a file is called "RECORD. TXT", which is auto-generated and can be opened by Notepad or Excel directly.
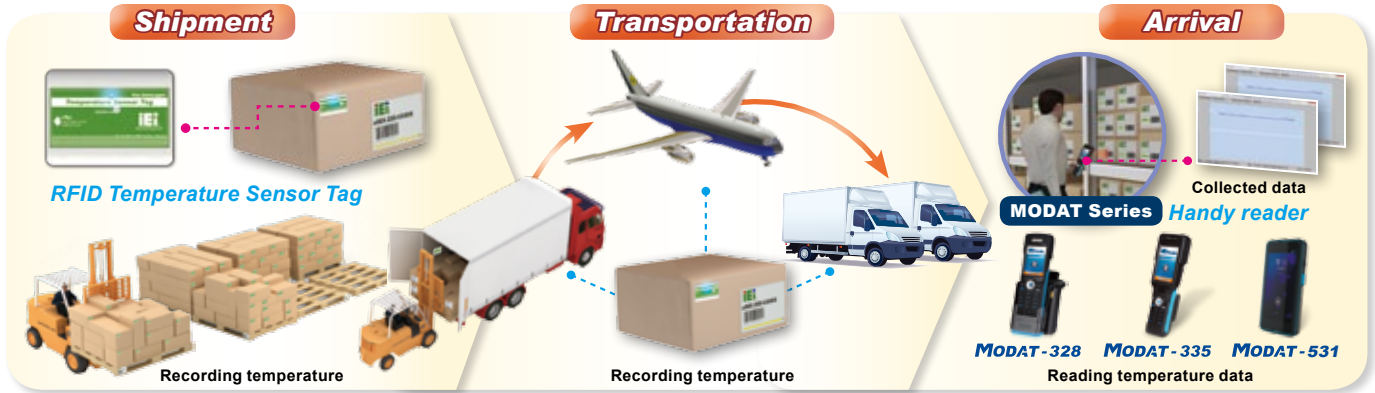
Configure the Device

Before using this device, the user has to setup the recording interval and synchronize the computer clock to the device. After finishing the data collection, use a USB cable to connect with a tablet or a laptop to read and analyze the data.

Setup the recording interval

Read out data

Data analysis

Check Highest & Lowest Temperature During Delivery

- This device implements a real-time clock which supports time-stamp function, and the user can use a RFID reader to read the highest and lowest temperature when the product is delivered from the starting point.

  Use the **MODAT-328/335/531** RFID reader to read the temperature to ensure the perishable product is not spoiled during delivery.

Shipment **Transportation** **Arrival**

RFID Temperature Sensor Tag

MODAT Series *Handy reader*

Collected data

MODAT-328 MODAT-335 MODAT-531

Recording temperature Recording temperature Reading temperature data

Applications and Industries

Data loggers are used in a wide variety of industries, especially in restaurants, catering, transportation and medical/vaccine storage. Basically, anywhere temperature is a critical factor in storage or transportation of goods, a temperature logger is useful.
The RFID sensor tags data logger are ideal for keeping track of the following applications:

- Dry ice storage and transportation
- Food fridges and freezers
- Vaccine fridges

- Blood storage
- Freezing foods transportation
- Medical storage

- Environment monitor
- GPS tracking
- Machine abnormality
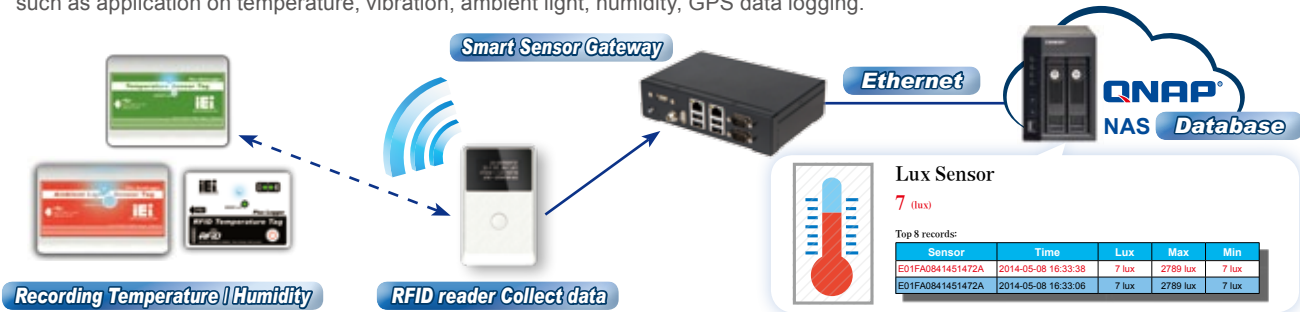
Medical Storage **Vibration Sensor** **Freezing Food Temperture Monitor** **GPS Tracking**

Combining IEI HF RFID sensor Tag series and RFID tag reader with QNAP NAS, IEI can offer a total solution for Environment monitor such as application on temperature, vibration, ambient light, humidity, GPS data logging.

Smart Sensor Gateway

Ethernet

QNAP
NAS **Database**

Lux Sensor
7 (lux)

Top 8 records:

Sensor	Time	Lux	Max	Min
E01FA0841451472A	2014-05-08 16:33:38	7 lux	2789 lux	7 lux
E01FA0841451472A	2014-05-08 16:33:06	7 lux	2789 lux	7 lux

Recording Temperature / Humidity **RFID reader Collect data**

Ordering Information

Part No.	Description
RFID-TP-D-ST-R10	Temperature sensor tag, data logger, 4GB storage, 0.5°C~1.0°C accuracy, 13.56MHz, ISO15693, USB 2.0 interface, RoHS
RFID-VB-D-ST-R10	Vibration sensor tag, data logger, 4GB storage, ±3.9mg accuracy, 13.56MHz, ISO15693, USB 2.0 interface, RoHS
RFID-AL-D-ST-R10	Ambient light sensor tag, data logger, 4GB storage, ±4 LUX accuracy, 13.56MHz, ISO15693, USB 2.0 interface, RoHS
RFID-HT-D-ST-R10	Humidity and temperature sensor tag, data logger, 4GB storage, relative humidity ±2%, temperature ±0.2°C, 13.56MHz, ISO15693, USB 2.0 interface, RoHS
RFID-GPS-D-ST-R10	GPS sensor tag, data logger, 4GB storage, <3m accuracy, 13.56MHz, ISO15693, USB 2.0 interface, RoHS
RFID-STP-D-ST-R10	Slim temperature sensor tag, data logger, 107KB storage, 0.5°C~1.0°C accuracy, 13.56MHz, ISO15693, USB 2.0 interface, RoHS
RFID-TP-N-ST-R10	Passive temperature sensor tag, data logger, 0.5°C~1.0°C accuracy, 13.56MHz, ISO15693, RoHS

Optional Accessory List

Item	Part No.	Description
Adapter power	63040-290013-000-RS	Adapter Power;Powertron;PA1015-050SIB260;PA1015-050SIB260-838 V0;;Vin:90~264VAC;13W; Erp(NO LOAD 0.3W),Wall Mount/Switchover plug;Vout:5VDC;USB;CCL;RoHS
Power bank	31603-000042-RS	Battery Pack;Li Ion;T-GEE;5811-TCTWMX312A;Maxcell;NA;6200mAH;3.8V;1S 2P; CCL;RoHS
RFID tag reader	RFID-ST-RD-R10	RFID Sensor Tag Reader, 128x64 OLED, 107KB Storage, 13.56MHZ, ISO15693, USB 2.0 interface, 650mAh.

Adapter power Power bank RFID tag reader