

# SensTAG™ UHF-EPC RFID DATA LOGGERS

Battery-Assisted (long-range)

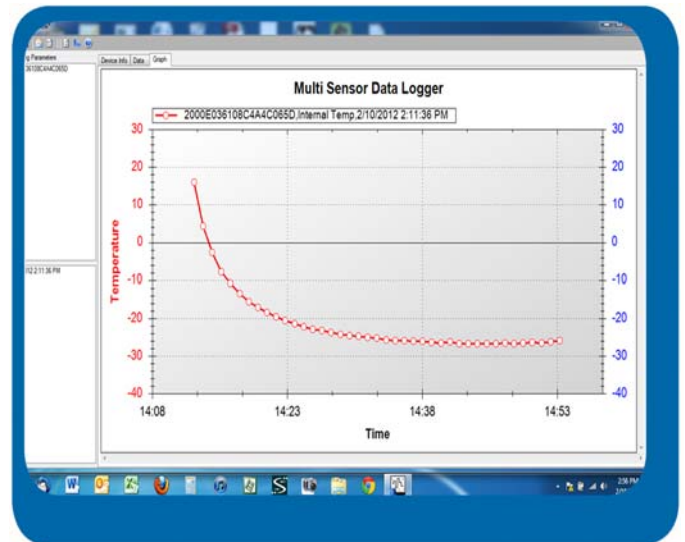
## + UNIQUE BREAK-THROUGH FEATURES

- **Low Cost Data Logging** (based on battery assisted passive RFID)
- **Uses Existing UHF EPC Gen 2 Readers** to read recorded temperature
- **Long read range:** 5+ meters with high power fixed reader
- **Mobile:** read sensors as they pass by a reader
- **Embedded Sensors:** read through walls, boxes, wood, plastic
- **Temperature Sensing:** Calibrated for optimum accuracy at desired sensing range
- **Cold Chain Temperature Range and Accuracy:** -20°C to 40°C @ +/- 0.5°C. (-4°F to 104°F @ +/- 1.0°F)
- **Wide Temperature Range Version:** -40°C to 120°C @ +/- 2.0°C. (-40°F to 248°F @ +/- 4.0°F)
- **Multi-Sensor Versions by Special Order:** Humidity, Shock, .....
- **Ultra High and Low Temperature Range:** with tethered sensors placed in the cold or hot location
- **Custom Antennas Available:** for Metal-Mount or optimized for mounting to liquid filled containers
- **Configurable Data Logging** with PC interface.
- **Customized sensor tags** —our specialty.\*
- **Easy to Install**—no wires to connect.
- **Totally Sealed**—submersible, rugged.

**Experts in RFID Sensing**  
*that We Invented*



Credit Card Passive RFID Sensor



Temperature—Time graph uploaded from SensTAG™ data logger

\*We specialize in providing innovative sensing systems for hard-to-solve sensing problems. In addition, we offer a range of semi-custom products and complete turnkey manufacturing of custom sensing solutions for volume commitments.

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Contact Phase IV Engineering to explore how our innovative wireless sensing technology can work for you.

Call 1-303-443-6611  
x 101 or x 114



Data Logger with internal and external tethered sensor.



Software configuration enables the data logger to be configured with sampling interval and temperature logging ranges.

## Specifications: **SensTAG™** UHF RFID Battery Assisted Passive Data Logger

### Physical

Size: Standard size - credit card.  
\*Down to 10mm x 4 mm. We specialize in custom packaging.

### Reader & RF Specifications

Operating frequency: 860-960 MHz Ultra High Frequency (UHF)  
Read/Write Range: 5+ meters using high-power reader.  
ID: Unique identifier EPC code for each device.  
Reader Commands Required: Standard Read/Write for many applications.  
Some applications may require custom commands

### Sensor Performance\*

(Internal)

Temperature Measurement Range and Accuracy:

Cold Chain: -20°C to 40°C @ +/- 0.5°C (-4°F to 104°F @ +/- 1.0°F)  
Wide Range: -40°C to 120°C @ +/- 2.0°C (-40°F to 248°F @ +/- 4.0°F)

Sampling Intervals: Programmable from 1 second, to 1 day.  
Alerts (data logger): 4 adjustable temperature threshold settings.\*  
Calibration: Calibration optimized for the application/stored in memory

### Additional Sensor Options

Up to 2 additional temperature sensors, humidity, shock, and others available with custom development

### Memory (Data Logging Mode)

Mode and Capacity: Time-based data logging: 800+ time-stamped logs  
Limit based data logging: 1,000+ sensing violation events based on 4 user-selectable limits.\*

### Electrical Specifications

Power source: Lithium Coin cell. Battery Life 1 to 5 years, depending timing settings

### Certification/Regulatory

ISO Standards: Fully compliant with ISO 18000-6C.  
EPC: EPC Class 1, Gen2 (with custom commands).

**\*UHF SensTAGs are highly configurable. A microprocessor-based "Smart" SensTAG is also available that offers options beyond these specifications. We specialize in custom RFID Sensors. Call us with your unique sensing challenges.**

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maintenance-free | miniature | mobile | rugged

