



## uTrust Sense Temperature Tracker (Generation 2)

### Smart Sensor Tag Solution

- **INTERNET OF THINGS BUNDLED SOLUTION**

RFID-enabled labels delivered with mobile application and cloud analytics platform

- **CONVENIENT FORM FACTOR**

Pocket-sized device for temperature capturing and recording

- **HIGH DURABILITY FOR HARSH ENVIRONMENTS**

Robust design for tracking applications

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### The Future of Goods in the IoT

Identiv's innovative uTrust Sense Temperature Tracker solution addresses the critical needs for applications that are temperature conscious. As a turnkey solution for the Internet of Things (IoT) market, the combined temperature tag, mobile, and cloud service delivers unique value to manage an entire population of near field communication (NFC) smart tags, measuring and storing precise temperature readings at any time as well as performing cloud-based analytics and remediation to guarantee the control and integrity of goods.

### The Solution

Identiv's uTrust Sense Temperature Tracker is a portable powered smart sensor that tracks and stores temperature readings and can be read locally by radio frequency identification (RFID) readers, such as mobile phones, or uploaded to the Internet for analytic purposes. A smart sensor for the IoT market, Identiv's uTrust Sense Temperature Tracker empowers businesses in a broad range of market segments by providing low-cost temperature monitoring for virtually anything.

### Typical Applications

Use cases include monitoring and tracking of temperature-sensitive products for cold chain applications, medical products, pharmaceutical logistics, and monitoring the transportation of fragile goods.

### Details and Features

The uTrust Sense Temperature Tracker contains a precise temperature sensor, digital storage, a flexible battery, and supports NFC. The tracker can communicate with a variety of local devices using an application on consumer mobile devices or industrial equipment to read the complete logged history recorded on the tracker.

Even after battery life has drained, the tracker can still be used as a passive temperature sensor label, providing the present ambient temperature. The entire memory content, including the measurement values, are still fully accessible, eliminating the risk of data loss and enabling further applications even after the data-logging capability has stopped.

The sensor is also configurable — enabling frequent measurements for detailed logging or longer intervals to provide logging for extended periods — and can be calibrated to a customer's application needs, providing a reliable and long read range using an ISO/IEC 14443 RFID interface (depending on the version of the sensor tag). The water-resistant sensor is easily attached with an adhesive backing that can be affixed to various surfaces. The front side of each label can be graphically personalized for specific customer branding, can be printed with offset CMYK and/or Pantone colors, and comes with a protective surface for enhanced protection against harsh environments.

PARAMETER	UTRUST SENSE TEMPERATURE TRACKER GENERATION 2
RFID Interface	ISO/IEC 14443
Compatible Mobile Application	<ul style="list-style-type: none"> <li>Android</li> <li>Custom application development possible with company logo</li> </ul>
Cloud-Based Application	Tag management service, temperature data collection, and analytics and provisioning
RFID Chip and Memory (for Temperature Records)	32 KB Flash (for program code and records)
Datalogging	<ul style="list-style-type: none"> <li>At least 10,000 records estimated (depending on the size of the program code allocated to the firmware)</li> <li>Temperatures are recorded in the Flash or EEPROM memory of the RFID chip and are readable even if the battery is end of life (fully drained)</li> </ul>
Datalogging Mode	<ul style="list-style-type: none"> <li>Dense logging mode: Store all measured values in memory</li> <li>All values out of limits mode: Define an upper, lower, and extreme upper/lower limit; only store values in memory that are outside the limits</li> <li>Limit crossing mode: Define temperature limits as defined above and count the number of measurement values outside the defined limits</li> </ul> <p>Note: Dense logging mode is the default supported mode, other modes are supported on demand</p>
Battery	3.0V non-rechargeable thin battery
Label Dimensions	90 x 60 mm (3.543 x 2.362 in)
Label Thickness	Approximately 1.7 mm (66.93 mil)
Inlay Construction	Aluminum etched on PET substrate
Customization	CMYK digital or offset printing and/or Pantone colors
Protective Layers	Chip and battery are embedded in compensation layer(s) for maximum durability
Temperature Range	-30° to 50°C (-22° to 122°F) at relative humidity 40 - 60%
Temperature Accuracy	± 0.3° to 0.5°C depending on temperature range (i.e., 0.3°C absolute temperature accuracy between 0° to 40°C)
Measurement Intervals	Configurable every 5 to 32,768 seconds (> 9 hours)
Real-Time Clock Accuracy	± 3% over the full temperature range
Programmable	Fully programmable AM Cortex M0+ microcontroller
Data Protection	Tag authentication, record integrity, and confidentiality (encryption of temperature measurements)
Accreditations	<ul style="list-style-type: none"> <li>Temperature calibration procedure according to ISO/IEC 17025</li> <li>CRF21 part11 compliance (in progress)</li> </ul>
Cloud Service (Optional)	<ul style="list-style-type: none"> <li>Label management and configuration (temperature profiles)</li> <li>Collect and store records in database</li> <li>Cloud-based analytics/remediation</li> <li>Temperature records integrity check</li> </ul>
Android Mobile Application	<ul style="list-style-type: none"> <li>Tag activation and setup</li> <li>Online/offline</li> <li>Local analytics (graph)</li> <li>Available for Android on Google Play</li> </ul>

Identiv (NASDAQ: INVE) is a global provider of physical security and secure identification. Identiv's products, software, systems, and services address the markets for physical and logical access control and a wide range of RFID-enabled applications. Customers in the government, enterprise, consumer, education, healthcare, and transportation sectors rely on Identiv's access and identification solutions. Identiv's mission is to secure the connected physical world: from perimeter to desktop access, and from the world of physical things to the Internet of Everything. Identiv has offices worldwide. Addresses and phone numbers are listed at [identiv.com/contact](http://identiv.com/contact). For more information, visit [identiv.com](http://identiv.com) or email [sales@identiv.com](mailto:sales@identiv.com).