

# T15e Tag

#### **DATA SHEET**



Provides a Wi-Fi based Temperature Monitoring solution for all hospital departments, including Vaccines for Children (VFC) monitoring.

#### PRODUCT HIGHLIGHTS

- Complies with CDC Requirements for VFC Monitoring
- Large Display
- · Minimum & Maximum Readings
- · Stores 64,000 Readings
- · Programmable Logging Rate
- Logs Physical Inspections (Audits) with a Single Button Press
- · Detachable Thermistor Probe
- Contact Sensor for Monitoring the Status of Refrigerator and Freezer Doors
- · Wireless Tag Status Reporting
- Visual and Audible Alarm for Temperature Out-of-Range Alerts
- Bi-Directional Communication for Over-the-Air Firmware and Configuration Updates
- Supports 802.1x Enterprise security (PEAP-MSCHAPv2) and WPA2-PSK with AES encryption
- BLE Communication for Tag Configuration
- Off-Line Temperature Monitoring During Network Failures
- · Flexible Mounting Options
- Battery and External Power Options
- Long Battery Life Using Off-the-Shelf Replaceable Batteries
- · Multi-Language Text Display

#### **DESCRIPTION**

The T15e Tag adds advanced temperature monitoring capabilities to Securitas Healthcare's market-leading family of Wi-Fi tags, making it ideal for use in all hospital departments.

#### TEMPERATURE AND VACCINES FOR CHILDREN (VFC) MONITORING

The tag uses a single probe to provide continuous measurement and data logging of refrigerators or freezers across the organization.

The T15e Tag can be supplied with a NIST traceable Certificate of Calibration compliant to ISO 17025:2017, and meets all the Centers for Disease Control and Prevention's (CDC) requirements for VFC Data Loggers.

The T15e Tag provides local audible and visual alerts, and works with Securitas Healthcare's MobileView and AeroScout Links platforms to provide real-time alerting and reporting for temperature monitoring solutions.





## **Applications**

#### LARGE DISPLAY AND PUSH BUTTON FUNCTIONALITY

The tag's display shows the current temperature, the minimum and maximum temperatures measured since the last audit, battery and power status, and alarm indications. The buttons are used to navigate and select the tag's menu options, activate the tag, and perform manual audits with a single-press.

#### **AUDIO AND VISUAL INDICATIONS**

T15e Tags include a buzzer, with 4 different distinct sounds, and 3 LEDs for status indications, such as tag activation, alerts, and low battery.

#### WI-FI & CYBER SECURITY

The tag supports 802.1x Enterprise security networks with a PEAP-MSCHAPv2 protocol. Additionally, they support a HTTPs connection with MobileView Servers using the TLS1.2 protocol. This allows a MobileView Server authentication using pre-installed X.509 certificates.

#### **BLUETOOTH LOW ENERGY (BLE) COMMUNICATION**

T15e Tags use BLE technology to communicate with the Deployment Manager (DM) app for device configuration and setup.

## BEACONING AND BIDIRECTIONAL (BD) COMMUNICATION

The tags utilize lightweight beaconing communication (for standard messages) and Bidirectional Wi-Fi communication with full network association and authentication. This unique combination provides a flexible and scalable solution for advanced applications. The tags can operate with one network SSID in a secure or non-secure mode and is able to store up to two application server connections. The T15e Tags also support both static IP configuration and DHCP.

#### **BATTERY AND EXTERNAL POWER OPTIONS**

The tags are powered by 2 AA batteries, which is the recommended power source, and an optional power adapter that can be used to save battery life. Battery levels are constantly monitored by the device and MobileView. The tag will use external power whenever available (batteries are recommended as a backup if external power is used).

#### MULTI-PURPOSE USB-C CONNECTOR INTERFACE

The T15e Tag has 3 multi-purpose USB-C connector ports. Power, temperature probe, and contact sensor inputs, can be attached to any of the 3 ports, and are automatically recognized by the tag.

### DETACHABLE TEMPERATURE PROBE AND CONTACT SENSOR

T15e Tags are supplied with a 3-meter USB-C temperature probe cable for temperature monitoring, and a USB-C Contact Sensor cable for refrigerator and freezer door monitoring. The temperature probe also includes a 1-meter Teflon thin section for easy installation through a refrigerator's or freezer's door seal.

#### PROGRAMMABLE LOGGING INTERVAL

Logging intervals can be programmed to 5, 15, 30, or 60 minute intervals using pre-configured static configurations.

#### MANUAL AUDIT WITH A SINGLE BUTTON PRESS

The CDC requires healthcare facilities to inspect physically (also called "audit") each VFC-enabled device at least twice a day (once during the morning and once during the afternoon shift). A physical inspection is logged when the main button on the front of the tag is pressed.

#### STORES UP TO 64,000 RECORDS

The T15e Tag's onboard memory can store up to 64,000 readings. The data can be monitored using MobileView.

#### OFF-LINE TEMPERATURE MONITORING

The T15e Tag can store data during times of network connectivity failures. Recorded data is then automatically synchronized with MobileView within 24 hours after normal network connectivity has resumed, or immediately by performing a manual sync from the tag. Off-line data is viewed via MobileView Reports.

#### **MOBILEVIEW ALERTS**

Using MobileView, events can be configured to trigger alerts for specific situations, such as when the tag's temperature is out-of-range or a refrigerator door is left open for an extended period. Additionally events can be configured to monitor the status of the tag's battery level and probe errors.

#### FLEXIBLE MOUNTING OPTIONS

The tag's external sensors, and convenient form factor, allows for secure mounting on a variety of assets using its supplied cradle. Other industry-specific mounting accessories can be supplied by Securitas Healthcare.



### **Use Cases**

The advanced features of the T15e Tag make it ideal for use in the Pharmacy (including VFC monitoring), Laboratory, Blood Bank and more. The ability to use the tag across the organization makes it easy to implement and maintain.

The tag allows for easy monitoring by staff, which is critical when showing inspectors the asset for temperature compliance. Often hospital personnel, who are asked to accompany inspectors, are not completely familiar with their organization's software, and need to hunt for the data to demonstrate compliance. Having the data on the tag's display, allows all personnel to easily demonstrate compliance, which is a game changer for inspections.

VFC twice-a-day audits are required by the CDC and all State VFC offices. The T15e Tag allows the provider to complete an audit with a single button press. This produces an audible beep and a large visual check mark on the tag's display, assuring the provider that the audit was completed, and has been recorded on the tag. The ability to see the audit event on a summary report, helps management review audits, and ensures that audits are completed for all VFC assets each day, keeping the facility in compliance.

In addition to the normal anticipated deployment areas and applications, users are encouraged to consider deploying the T15e Tag in other hospital departments that would benefit from the unique features of the tag.

These included:

#### CIDEX DISINFECTION FOR ENDOSCOPES

Cidex is only effective as a disinfectant above 68F, so it is critical that proper temperatures are monitored. Having the display on the tag, and local alarms if the temperature falls below the range, helps ensure that scopes are disinfected at the correct temperature, eliminating risk of cross contamination. This is a Joint Commission inspection item.

#### **BLANKET WARMERS**

Blankets must be warmed to no hotter than 130F, or risk burning staff or patients. Having the display on the tag helps providers ensure that they are not removing blankets that are too hot. This is a Joint Commission inspection item.

#### **TRANSPORT**

The expanded memory of the tag allows recording of temperatures during transport. Users can use the Audit button to reset Min/Max before transport, and then view the Min/Max temperatures on the tag upon arrival. This helps verify that the temperature did not have an excursion. A forced Bidirectional (BD) session uploads the temperatures to the host wirelessly to record the transport event.





### **Product Specifications**

SKU: TAG-1500-E T15e Tag Models

SKU: TAG-1500-E-NIST T15e Tag with NIST Certification

Operating Temperature Range: 0°C to 50°C (32°F to 122°F) **Environmental Specifications** 

Tag Storage Temperature Range: -20°C to 60°C (-4°F to 140°F)

Humidity: 0% to 95% RH non-condensing

Ingress Protection Rating: IP-54

Temperature Probe & Monitored

Temperature Range

Cable Length: Total 3m (2m ~4mm diameter PVC cable with 1m thin Teflon section 2x1.2mm)

Probe Type: 2 wire waterproof RTD

Connector: USB-C

Probe Length: ~6mm diameter, 70mm length

Probe Temperature Measurement Range: -200°C to +140°C (-328°F to +284°F)

**Accuracy:** +/-0.5° C (+/-1° F)

Tag Memory 64 Mbit Flash memory - Able to store up to 64.000 temperature readings

**Dimensions LWH:** 114 x 77 x 20.3mm (4.4 x 3 x 0.8inch) Physical & Mechanical

Weight: 150g (5.3oz) with batteries

Connectors 3 x USB-C Multi-purpose connectors

Battery: 2 x AA Alkaline replaceable batteries Electrical

External Power (USB-C Interface): 5V/0.5A Adapter (Optional)

Note: The power supply is proprietary and must be purchased from Securitas Healthcare.

Display E-ink

Audio: Buzzer - 85dBA@10cm Audio & Visual Indications

LEDs: 3 dual-color LEDs

Transmission power: up to +19dBm (~81mW) Radio

Patented clear channel sensing avoids interference with wireless networks

BLE (Bluetooth Low Energy): BLE 5.0 [2.402 GHz — 2.480 GHz (2.4GHz bands)] Communication

Wi-Fi: 802.11 radio (2.4 GHz); b/g/n compliant

Outdoor range: Up to 200m (650 feet) Range

Indoor range: Up to 80m (260 feet)

Wi-Fi Security Mode Open, non-encrypted, WPA2-PSK(AES), 802.1x Enterprise security (PEAP-MSCHAPv2)

Logging Rates 5 minutes, 15 minutes, 30 minutes and 60 minutes

Cable Length: 3m ~4mm diameter PVC Contact Sensor Cable

Connector: USB-C

Inputs: Single normally open (NO)

Certifications

FCC Part 15 Subpart C, Subpart B, RSS-247, EN 300-328, EN 301-489, Radio Equipment Directive 2014/53/EU (RED), Radio Equipment Directive S.I.2017/1206 (RED), RoHS 2 Directive 2011/65/EU, RoHS 2

Directive S.I.2012/3032

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