

T14 Tag for Patient Tracking

User Guide

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Table of Contents

Overview	5
T14 Tag Features	5
Attaching the Tag	7
Tag Management	7
Configuration & Firmware Upgrade via MobileView 5.0	8
Tag Maintenance	8
Charging the Battery	8
Tag Battery Life.....	8
Cleaning the Tag.....	8
T14 Tag Models	9
Tag Accessories	9
Specifications	9
Tag Specifications	9
Safety, Warnings and Warranty	11

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Overview

The STANLEY Healthcare T14 Bi-directional Tag is a component of the enterprise-level visibility solution based on standard Wi-Fi communication for location-based applications. The T14 Tag adds further flexibility and scalability to locate patients across a wide variety of applications.

Once deployed, the tag uses its bi-directional functionality to receive firmware and configuration updates from MobileView. This removes the need to manually collect, update and re-deploy tags in the field.

T14 Tags optionally come with a Call Button and an embedded Ultrasound Receiver.



Figure 1: T14 Tag

T14 Tag Features

Beaconing and Bi-directional Communication

The T14 Tag utilizes lightweight beaconing communication (for standard messages) and bi-directional Wi-Fi communication with full network association and authentication (for advanced applications). This unique combination provides a flexible and scalable solution for advanced applications. The tag can operate with up to four different network SSIDs in a secure or non-secure mode and is able to store up to two network IPs. The tag also supports both static IP configuration and DHCP.

Ultrasound Receiver (optional)

The T14 Tag is also available with an embedded ultrasound receiver able to receive signals from ultrasound Exciters. Exciters transmit ultrasound signals, which do not pass through walls, thus helping deliver location reports at room-level accuracy. The T14 Tags, with embedded ultrasound receivers, capture the signals and report their exact location over the Wi-Fi network.

Rechargeable battery

The tag has a non-replaceable rechargeable battery that provides up to 1 month battery life*. The tag is able to report its battery level to MobileView. The T14 Tag also has a motion sensor to conserve battery life when the tag is not in motion.

*Battery life depends on tag type and configuration.

Small Form Factor with Ergonomic Design

The tags small and ergonomic design provides ease of use and patient comfort.

Egress Point Detection

When combined with STANLEY Healthcare Exciters, the T14 Tag provides instant notification when a tagged patient passes through an egress point, such as a gate, doorway or other tightly defined area. Additionally the tags behavior can be automatically modified while passing through an egress point, such as activating/deactivating the tag, or changing the tags transmission rates to accommodate different usage scenarios.

Rugged Performance

The T14 Tag enclosure is designed for durability against significant impacts and is water and dust resistant.

See product specifications for IP ratings.

Visual Indication

The T14 Tags include a multi-color LED which enables distinct visual indications for specific use cases.

Tag Management

T14 Tags are easily configured and activated wirelessly via the Tag Manager application and a Tag Activator device. The tags can then be programmed using bi-directional communication via MobileView.

Call Button (optional)

The tags can include a call button allowing events to be defined by button presses, such as emergency alerting or par level events. Multiple messages can be set up using different button press patterns, such as a long press or short press.

Attaching the Tag

T14 Tags are easily secured to a patient's wrist using standard hospital bands.



Tag Management

The T14 Tag is configured, programmed and activated wirelessly, using the AeroScout Tag Manager BD application and an AeroScout Tag Activator.

Key features of the AeroScout Tag Manager BD application:

- Dynamic GUI that includes only relevant parameters, providing an intuitive and clean look and feel.
- Configure parameters essential for bidirectional communication.
- Limited set of commands for quick configuration and activation.
- Quick view and selection of tag's embedded configurations for easy comparison between configuration templates.

Please refer to the *AeroScout Tag Manager BD User Guide*.

Configuration & Firmware Upgrade via MobileView 5.0

MobileView 5.0 supports the option to update the T14 Tag configuration and upgrade the tags firmware over the air (wirelessly). A group of tags or tags associated to a specific category can also be configured simultaneously.

Please refer to the *MobileView 5.0 User Guide*.

Tag Maintenance

Charging the Battery

The T14 Tag has a rechargeable battery that can provide power for up to 1 month (depending on tag type and configuration). MobileView provides an indication when the tags battery level is low. Tags with low battery levels are recharged using the T14 Tag charger.

Please refer to the *T14 Tag Charger User Guide*.

Tag Battery Life

The T14 Tag battery is non-replaceable. The tag's battery life degrades after a period of time, which depends on use and recharge cycles. When the operating time of a charged battery is significantly reduced, the tag should be disposed of according to facility procedures in your jurisdiction.



WARNING: This device contains a lithium battery. Do not force open, heat to 212°F (100°C), or dispose of in fire.

Cleaning the Tag

Cleaning the external surface of the tag's housings can be done using Alcohol or Chloride based wipers only.

T14 Tag Models

Tag Model	Tag Description
SKU: TAG-1400	Basic Model
SKU: TAG-1400-C	Includes Call Button
SKU: TAG-1400-U	Includes Ultrasound
SKU: TAG-1400-CU	Includes Call Button and Ultrasound

Tag Accessories

Accessory	Model
Wrist band	SKU: TAC-223
AeroScout Tag Management Suite	SKU: BWH-1000-02-TA

Specifications

Tag Specifications

Range

- **Outdoor range:** Up to 200m (650 feet)
- **Indoor range:** Up to 80m (260 feet)

Physical and Mechanical

- **Dimensions:** 1.6 x 1.4 x 0.6 inch (41x 36 X 15 mm)
- **Weight:** 16g

Radio

- 802.11 radio (2.4 GHz); b/g/n compliant
- Low frequency receiver for chokepoint detection (125kHz)
- **Transmission power:** up to +19dBm (~81mW)
- Patented clear channel sensing avoids interference with wireless networks

Ultrasound Receiver (optional)

- Frequency 40KHZ

Environmental Specifications

- **Temperature:** 0°C to 50°C (32°F to 122°F)
- **Humidity:** 0% to 95% RH non-condensing
- **Ingress Protection Rating:** IP-67
- 4.2V Lithium Polymer rechargeable battery (non-replaceable)
- **Battery life:** up to 1 month, depending on tag type and configuration.

Programmability

- Tag configurations
- Transmission channels
- IP Settings

Certification

- **Radio:**

FCC Part 15, sub-part C class B, sub-part B

EN 300-328, EN 300-330, EN 301-489, RSS 210 (Canada)

- **Safety:**

CE, cTUVus (EN60950)

EN 60601-1-Rev3

Safety, Warnings and Warranty

FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- a) Reorient or relocate the receiving antenna.
- b) Increase the separation between the equipment and receiver.
- c) Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- d) Consult the dealer or an experienced radio/TV technician.

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- a) This device may not cause harmful interference
- b) This device must accept any interference received, including interference that may cause undesired operation.

FCC Warning

Modifications not expressly approved by the manufacturer could void the user authority to operate the equipment under FCC Rules.

WARNING: This device complies with Part 15 of the FCC Rules and RSS-210 of Industry and Science Canada. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

**Stanley Healthcare (“Stanley”) Standard Warranty and Disclaimer
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Exclusions: The warranty set forth above will not apply if the Hardware or the Product (i) has been altered, except by Stanley, (ii) has not been installed, operated, repaired, or maintained in accordance with instructions supplied by Stanley, (iii) has been subjected to abnormal physical or electrical stress, misuse, negligence, or accident; or (iv) is provided for beta, evaluation, testing, or demonstration purposes for which Stanley does not receive a payment of purchase price or license fee.

In addition, this warranty shall not cover the following:

- Batteries (other than DOA -Dead On Arrival).
- Plastics (including defects in appearance, cosmetics, decorative or structural items including framing and non-operative parts).
- Tag Calibration.
- Expenses related to removing or reinstalling the Products.
- Defects or damage that result from the use of Non-Stanley certified Products, Accessories, Software or other peripheral equipment.
- Defects or damages resulting from service, testing, adjustment, installation, maintenance, alteration, or modification in any way by someone other than Stanley, or its authorized service partners.
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