American Accessories
A SOLUTIONS COMPANY

Datasheet

STT Autoclave Tag

1. General Description

The STT Tag is designed for tracking medical instruments that go through harsh sterilization cycles. The tag meets all requirements for high temperature and pressure resistance encountered during cleaning and sterilization processes. The tag can withstand more than 200 sterilization cycles and delivers a battery life of up to 2 years.

The STT Tag data is processed via Bluetooth Low Energy (BLE), keeping infrastructure costs low and installation simple.

Assets that can be tagged with an STT Tag are critical Operating Room instruments, such as a surgical instrument tray. The tray is tracked as it moves through different stages of preparation for surgical procedures. Surgical instrument trays require a rigorous sterilization process after every surgical use, which includes ultrasonic cleaning, ETO sterilization, high pressure liquid sterilization, and steam autoclave. The STT Tag enables hospital staff to quickly locate the trays. Asset status can be determined during the sterilization and preoperative processes; therefore, significantly reducing time spent searching for instruments required for procedures. Real-time visibility of critical equipment ensures that the sterile trays are readily available, thus increasing staff satisfaction, improving operating room preparation time and throughput. In addition, the tags can be used to provide automated inventory of trays in various locations, enabling better planning and scheduling of central processing activities.

2. Features

- Bluetooth Low Energy Compatibility
  - Hardware compatible with BLE 5.0
  - Standard Apple iBeacon Protocol
  - Connection to Bluetooth gateway and smartphone for communication of BLE signal
- Long
  - Low power utilization
  - Battery level monitoring
  - Single battery to provide more than 2 years
- Rugged Performance
  - Designed for operation in harsh sterilization conditions
  - Waterproof design
  - Withstand more than 200 sterilization cycles (at a peak of 134℃ and 35 PSI)

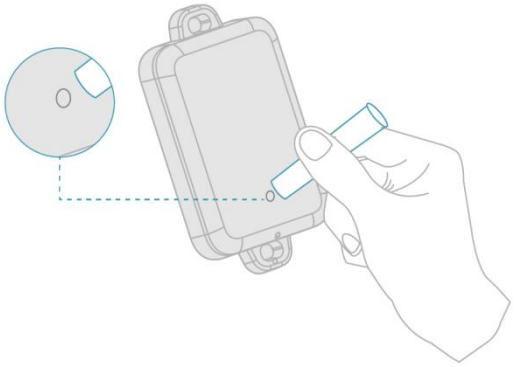
3. Application

- Autoclave sterilization counting
- Location tracking for clinical instruments/other assets of healthcare facilities

4. Specifications

Mechanics / Design	
Dimensions (L x W x H)	60.3 x 32.2 x 12mm (2.37 x 1.27 x 0.47in)
Weight	23g
Color	Black
Enclosure material	PPSU (Complies with ISO10993) EPDM (O-ring)
Installation	Use appropriate materials to secure tag to asset utilizing attachment points
Hardware	
Radio	Bluetooth® Low Energy 5.0
Tx Power	0dBm default (-30dBm to 6dBm configurable)
Bluetooth Range	Outdoor: Up to range 70m (tx power defaults to 0dbm)
	Indoor: Up to 20m (tx power defaults to 0dbm)
Battery	Industrial & High temperature 550mAh Lithium CR2450 battery
	Non-rechargeable & non-replaceable
	Battery life: 2 Years In default configurations and one standard sterilization cycle per day
Thermal Protection	Shutdown temperature: 100 ± 5℃ Reset temperature: 70 ± 15℃
Antenna	PCB trace antenna
Sterilization	
Standard	Complies with ANSI/AAMI ST79:2010/A2:2011
Sterilization Cycles	Withstands up to 200+ sterilization cycles Exposed at peak temperature of 134℃ for 3mins per cycle
Environmental	
Operating Temperature	-25℃ to 125℃
Operating Pressure	Up to 30 PSI
Storage Temperature	20℃ to 30℃ (Recommended)
Certification	
Radio	USA (FCC) Part 15, sub-part C class B FCC ID: 2BA5XS22079

5. Initial Use

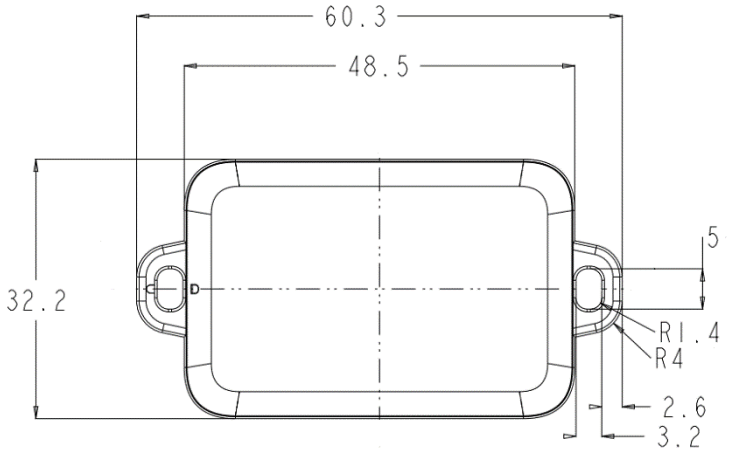


The STT Tag has been equipped with an internal Hall switch, which allows a user to easily power the tag on or off.

If the tags are turned off, the user will need to apply a small magnet to the main face of the tag to turn on the device. Bringing the magnet to the circle marked on the tag enclosure twice within 10 seconds will power the device on and put the tag into Program mode.

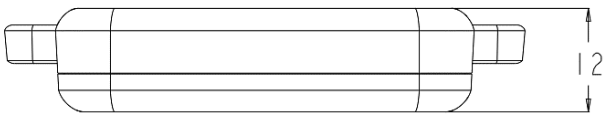
After a Tag has been turned on with the magnet, it will remain configurable for 12 hours. During this period, a user can connect to the tag via GATT protocol with a smartphone App to configure parameters such as advertising interval and TX (transmission) power.

6. Dimensions and Packaging

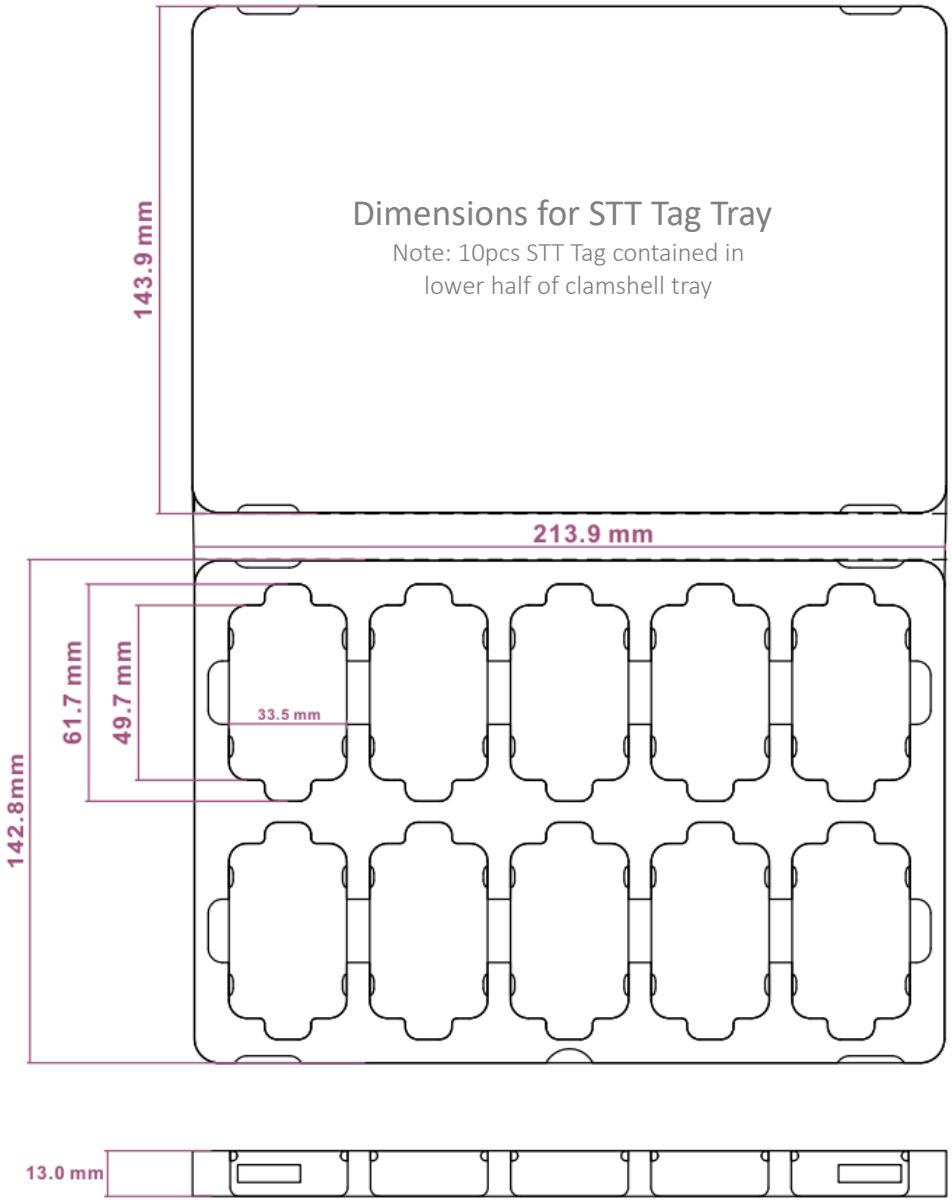


Exterior Dimensions of STT Tag

Note: Dimensions shown in mm



Details	Tray	Outer Carton
Tag Quantity	10	300
Size	213.9 x 143.9 x 13mm (8.42 x 5.67 x 0.51in)	495 x 240 x 170mm (19.50 x 9.45 x 6.70in)
Weight	300g (0.66lb)	<11,340g (<25 LB)



Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. 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 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 of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement

The product complies with the FCC portable RF exposure limit set forth for an uncontrolled environment and is safe for intended operation as described in this manual. Further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

Contact

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