

User Manual

Name: AEROSSENS WIRELESS TAG

Models: A20WST / A10WPT

Revision: V2.0

User Manual Revision History

Revision	Description	Approved	Date
V1.0	Initial Release	Farid Hassani	18 Mar 2021

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1. Product Introduction

Overview

AEROSSENS has developed state-of-the-art wireless tags using Bluetooth Low Energy 5.0 technology capable of verifying the presence and status of emergency equipment from a distance and in user friendly format on any Portable Electronic Device.

Features

- Advertising Beacon Tag
- Bluetooth Low Energy
- Tamper Proof
- Easy to Deploy
- Long Battery Life
- Bluetooth SIG Certification

Models

- A20WST (AEROSSENS Wireless Security Tag)



- A10WPT (AEROSSENS Wireless Presence Tag)



Applications

A20WST (Wireless Security Tag) and A10 (Wireless Presence Tag) are a key component of the AEROSENS platform to help airlines save costs and increase safety and security by significantly reducing the rate that life vests are stolen or misplaced on aircraft.

Tamper Evident Inspection & Real-Time Monitoring

AEROSENS A20 Wireless Security Tags provide the tamper status for each tagged life vest stowage unit directly to the crew member's mobile device. The patented AEROSENS Wireless Tag is designed for tagging life vest enclosures or emergency equipment. The small form factor and solid tag structure is ideally suited to life vest stowage units and offers airlines the opportunity to track whether life vest stowage units under the passenger seats have been opened/closed during the flight.

Inventory & Presence Check

AEROSENS A10 Wireless Presence Tag allows to automatically collect emergency equipment data and make inspecting equipment a hands-off process. By installing the tags on cabin safety equipment, the time of pre-flight check of equipment could significantly be reduced from hours to seconds. Saving time by automated equipment inspection in this way can also reduce human factor error and provide easy access to maintenance history.

2. Specification

Dimensions	42 x 34.5 x 13 mm/ 1.7 x 1.4 x 0.5 in
Weight	26.5 gr/ 0.06 lbs. (battery included)
Operating Temperature	-40°C and +85°C
Transmission Power	4 dBm
Battery Model	CR2450
Operating Frequency	2.4 GHz ISM
Battery Life	Up to 6 yrs.
Read Range	Up to 50 m
Housing Material	ABS Plastic
Radio Protocol	Bluetooth Low Energy 5.0
Attachment Method	Adhesive/Cable Ties/Screws

3. RF Exposure Warning 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 or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by AEROSENS may void the user's authority to operate the device.

FCC ID: 2AYXGWT

4. Attachment Method

High Performance Adhesive

Typically used for fixed or mobile durable equipment where you have a flat surface to apply the tag. This is a fast and easy way to affix the tag and the strong and semi-permanent adhesive can withstand cabin environment without any problems.

Straps/Hanging

Sometimes, you have difficulty finding a flat surface like around a flashlight or on the curve of an oxygen bottle, or even you don't need the tag to be applied permanently, which means that you want a method of attachment that will hold steady in most situations without being too easy to remove. The tag corner holes allow for simple mounting in applications where a cable tie solution is suitable. The tag can be either hung from one hole or simply strapped via two holes.

Bolts/Screws

In some cases, you might want the tag to be more permanent, then use bolts/screw attachment method. Wireless tags can have degraded performance with metal because it can detune the antenna. Thus, it's best if you use plastic bolts which can generate a stronger, easier to read signal.

5. Powering on your Tag

After removing your tag from its packaging, pull out the battery insulating tab as shown in the figure below. This turns the tag on and the LED will be on for three seconds. It's advisable to leave your tag with the battery insulating pull tab underneath the battery in place until ready to use.



6. Verifying Tag State

To check whether your A20WST or A10WPY tag is operating normally, you can use AEROSENS CMS 5.0 application on an iOS® or Android device. Once logged in, you can scan the QR code or manually enter the mac address to see your tag that is powered on and advertising.

7. Contact Information

Website

www.aerosens.com

Address

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USA

Emails

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8. Declaration

The contents of this manual are subject to change without prior notice for further improvement.
AEROSENS team reserves the right to explain all the terms of this manual.

Federal Communications Commission (FCC) Statement

15.21

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

15.105(b)

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:

- 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.

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 of the device.

FCC RF Radiation Exposure Statement:

1. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.