

2014

Alltraq RFID Asset Tag User Manual

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Regulatory and Compliance Information

FCC Compliance

FCC Certification number:

2AAXVTNTRFMOD1

Manufacturer:

ABG Tag and Traq, LLC.
2300 Joe Ramsey Blvd. E.
Greenville, TX 75401
USA

This device complies with Part 15 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.
3. In compliance with RSS 220, clause 5.1L

The antenna of the UWB device shall be factory-installed and shall not be made modifiable by users.

4. In compliance with RSS 220, clause 3.3:

In order to prevent radio interference caused by end-user transmissions on unauthorized frequencies, transmitters with external frequency selection controls and/or frequency programming capability shall conform to the following:

- (a) Transmitters with external frequency selection controls shall operate only on authorized channels that have been preset by the manufacturer, equipment supplier or service technician/maintenance personnel.
- (b) Transmitters with frequency programming capability shall have at least one of the following design characteristics that prevent the user from altering the preset frequencies:
- (c) Transmitters with external controls available to the user can only be internally modified to place the equipment in the programmable mode. Furthermore, while in the programmable mode, the equipment is not able to transmit. The procedure for making the modification and altering the frequency program is not available to the user of the equipment; or
- (d) Transmitters are programmed for frequencies through controls inaccessible to the user; or

(e) Transmitters are programmed for frequencies through use of external devices or specifically programmed modules made available only to service/maintenance personnel; or

(f) Transmitters are programmed through cloning (i.e. copying a program directly from another transmitter) using devices and procedures that are only available to service/maintenance personnel.

The transmit center frequency is fixed. The transmitter has no capability (either software or hardware) to alter this frequency.

- a. Device is programmed to a center frequency listed above during manufacturing and is inaccessible to end user.

5. This equipment may only be operated indoors. Operation outdoors is in violation of 47 U.S.C. 301 and could subject the operator to serious legal penalties.

6. The antenna of the UWB device shall be factory-installed and shall not be made modifiable by users.

This equipment has been tested and found to comply with the limits of a UWB transmitter device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment. This equipment generates, uses, and radiates radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference. However, there is no guarantee that interference will not occur.

Department of Communications—Canada

Certification number:

11400A-TNTRFMOD1

Canadian Compliance Statement

This Class B Digital apparatus meets all the requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte les exigences du Règlement sur le matériel brouilleur du Canada.

This device complies with Class B Limits of Industry 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.

ABG Tag and Traq asset tracking tags are certified to the requirements of RSS-220 for Ultra Wide Band transmitters pertaining to Radiated Emissions and Peak Emissions.

Battery Statement

- This is a Non-Rechargeable Battery. Please do not recharge.
- Do not mix lithium batteries with other types of batteries.
- The storage area should be clean, cool (not exceeding +30 Deg C), dry, and ventilated
- Do not use if the battery casing is damaged
- This is consumable battery, no return, no refund after sale. We are not responsible for any damages and consequences damages caused by misusing

Tag Operation and Use

Overview

The ABG Tag and Traq asset tag is a battery powered RF device. It transmits a UWB signal which can be used to locate its position. The transmitted signal contains a unique ID number. The tag is affixed to inventory, cars, laptops, or any asset of interest to track its position in real time. The tags are always on unless the batteries are removed.

Alltraq Location System

The RFID asset tag is intended to be used within the ABG Tag and Traq's Alltraq system receiver geometry. The asset tag emits a UWB RF signal that is received by an external system of receivers. The UWB signal must be received by at least 3 receivers to calculate a location. Being received by more than 3 receivers reduces the error in the location. The Alltraq receiver system determines the approximate location of the tag, within 1-2 feet. The tag emits its UWB signal on a regular preprogrammed interval. The interval is once every 4 seconds when the tag does not detect motion and once every second when motion has been detected.

For identity purposes the tag's ID is transmitted within the UWB message along with its current state of motion (in motion or not in motion). The tag's ID can also be found on the outside of its case. The tag's id is associated with the asset's unique id/serial number in post processing to identify the asset the tag represents.

To track an item of interest, attach an RFID tag to the exterior of the asset to be tracked. It is best to attach the tag in such a way that it has a direct line of sight with at least 3 receivers when in the tracking area. Attaching a tag to the top of an asset will usually ensure the best performance.

Batteries

The tag runs on lithium batteries. Proper care must be taken when handling. A tag will normally operate for greater than three years on the same batteries. The batteries can be replaced using two 3.6V lithium AA batteries. Do not replace with 1.5V AA batteries.