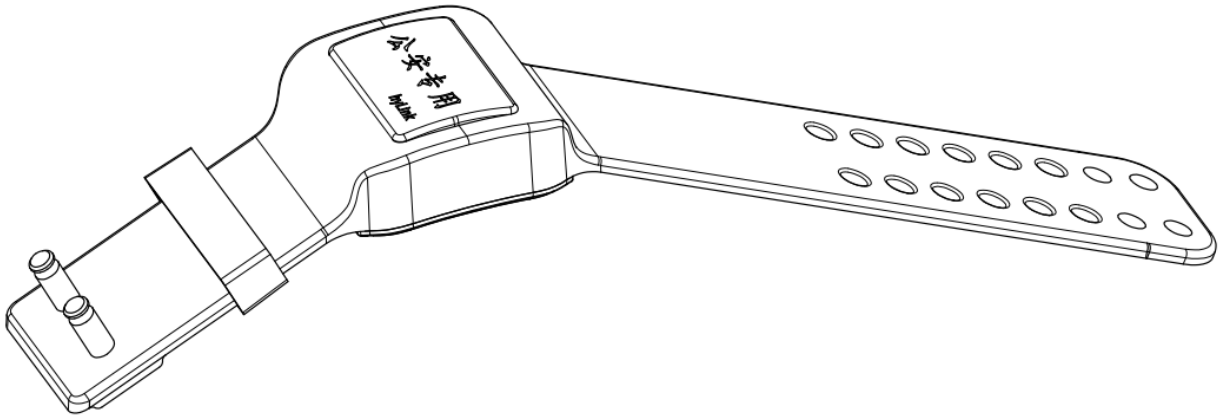
HT-PW361-S Active Anti-Tamper Wristband Tag User Manual

1 Product overview

HT-PW361-S active tags are working in the 125KHZ and 2.446GHz-2.454GHz band in accordance with the requirements of the Telecommunications Authority in the public frequency band. The schematic diagram of the tags is as follows:



Picture 1 HT-PW361-S Active Tamper Wristband Tag

1. 1 Application

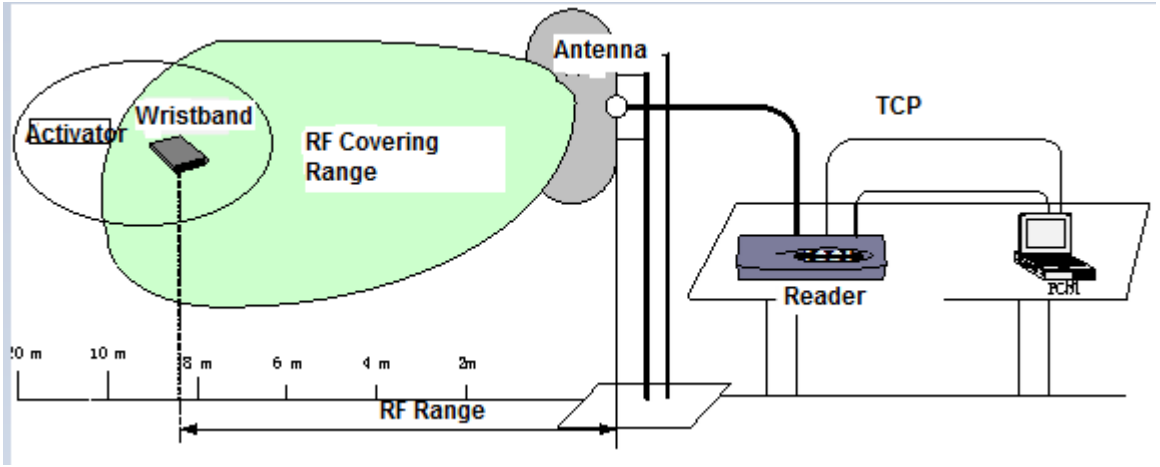
The 2.45 GHz active RFID tag is wore on person's wrist, is used to identify and track personnel monitoring system. It is integrated with reader, incentive, computer and other components of active RFID application system. This product is mainly used in personnel positioning and monitoring management.

1. 2 Model description

HT-PW361-S is an active tamper wristband tag with LF wake up function, this user manual is used for HT-PW361-S only

1. 3 Working environment

A complete RF identification data collection is the first prerequisite for the normal operation of HT-PW361S active tamper wristband tag. Its application is shown in picture 2.



Typic RFID application for wristband

2 Performance

2.1 Function

HT-PW361-S active tamper wristband tag is accordance with the requirements of the Telecommunications Authority in the public frequency ban, the main function is below:

① Work frequency band 2.446GHz-2.454GHz;

② Communication conforms to Aerospace Innotech Active Communication Protocol Standard;

③ Low voltage detection, battery low voltage alarm function;

④ 125KHz low frequency excitation and physical wake-up function;

⑤ Batteries are rechargeable and support charging status indicator lights.

2.2 Main technical indicator

2.2.1 General requirements

1) Work temperature：-10℃～50℃

2) Storage temperature：-20℃～60℃

3) Working humidity：5%～95%（25℃）

4) Battery parameter：DC 4.2V/500mAh ，Polymer rechargeable battery

5) Work current：Standby<100uA，transmit<20mA（Peak value）

6) Dimension：248mmX46mmX19mm

7) Weight：50g

2.2.2 Technical indicator

Microwave（2450MHz）send and receive info

1) Frequency Band：2.4GHz～2.4835GHz，default value is 2.45GHz

2） RF output power：0dBm±1.0dB （Set as fixed value）

3） Frequency accuracy：No less than ±20ppm

4） Void rate: 1Mbps

5） Modulation: GFSK

6） Reading range：No less than 50m @EIRP=2.0dBm（ SAAT-F527A reader with 5dBi external antenna，receiving attenuation value is 0dB）

7） Anti-confliction：Random Number Delay Algorithms

8） Max Simultaneous Tag Detection：No less than 200pcs

9） Identification rate: read 50pcs/3s

LF（125KHz）receiver

1） Frequency band: 125KHz

2） Frequency accuracy: ≦±120ppm

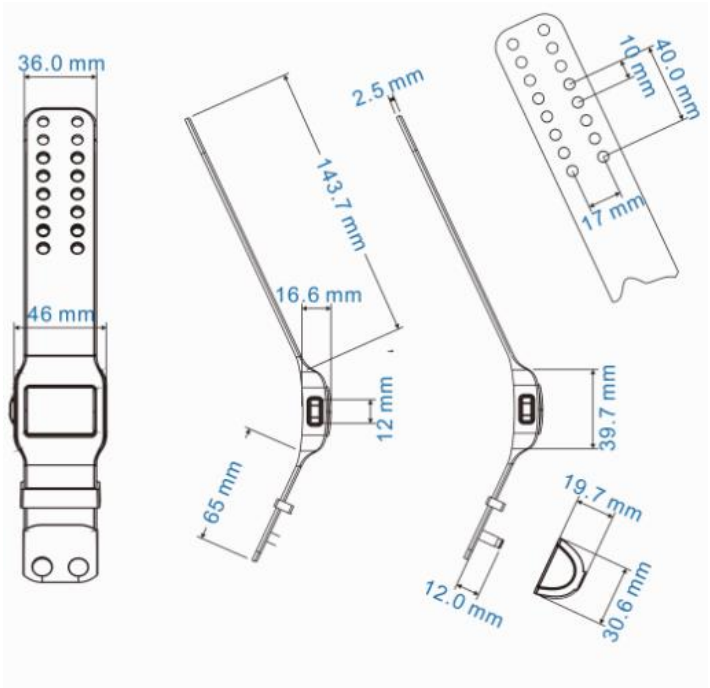
3） Activating range: 0.3~6m no obvious direction.（SAAT-E221B activator）

4） Debugging method and coding: OOK/ Manchester encoding

3 Structural feature

HT-PW361-S active tamper wristband is made of PC plastic mould, which is divided into four parts: upper and lower box, wristband and tamper buckle. The outer shell material is made of PC+15% glass fiber plastic material. The parts of the wristband are closely connected by sol, and the shell has good structural strength.

3.1 Dimension



Picture 3 HT-PW361-S active tamper wristband tag dimensional sketch

3.2 Volume and weight

HT-PW361-S active tamper wristband tag size is 248mmX46mmX19mm，weight is：50g。

3.3 Software interface

HT-PW361-S active tamper wristband 2.4G software interfaces conform to 《Q/HT 1006-2011 2450MHz active RFID air interface parameters V13》regulations and standards.

4 Wear and test

Before wearing HT-PW361-S wristband tag, please read this manual carefully.

4.1 Wear condition

Before wearing HT-PW361-S wristband tag, please carefully check whether the product is in good condition. If there is a shortage of damage, please contact and replace it in time.

4.2 Select wear position

HT-PW361-S wearing mainly has the following requirements:

1) Wear on the wrist of a person with the wristband facing upward and no shield affecting the wireless signal.；
2) Choosing appropriate wrist band hole according to wrist size；
3) Fasten the anti-disassembly buckle to ensure that it cannot be disassembled by hand.

4.3 Active wristband tag debug

HT-PW361S active wristband tag debug：125KHz activating range 和 2.4G communication range test

4.3.1 Activating range test

Our activator test is used to test the activating range of the wristband tag. The activating range test can be carried out from near to far, or from far to near.

4.3.2 Communication range test

Our 2.4G reader test is used to test the 2.4G reading range of the wristband tag. 2.4G reading range test can be carried out from near to far, or from far to near.

5 Use and operate

The reading operation of the wristband tag is carried out with a matching reader. The specific operation process can be referred to the SAAT-F527 reader instruction.

6 Day-to-day maintenance

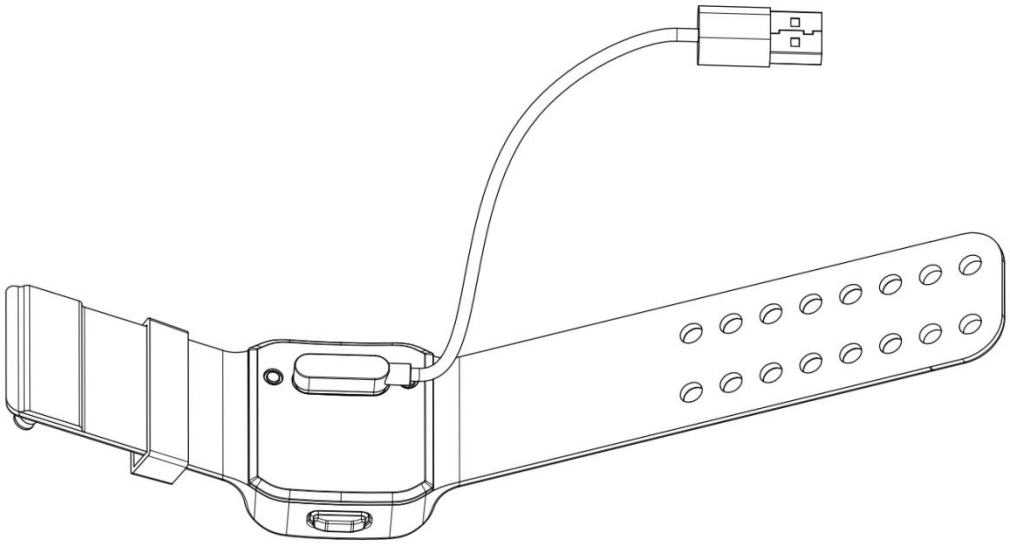
Tag maintenance includes the following two aspects:

2) Check installation for looseness.
3) Read and confirm the power of the wristband tag with activator and reader at regular time.

7 Battery charging

The battery charging steps are as follows：

1) Remove the anti-detachment buckle by using the matching strong magnetic base；
2) Remove the wristband and place it on the desktop with back facing up.；
3) Touch the USB magnetic suction charging wire to the wristband tag charging port according to the mode of picture 4, pay attention to the direction of magnetic suction, otherwise it can not be contacted.；
4) Observe the charging indicator. The charging state is red and after filling the charging state is green.



Picture 4 Charging schematic diagram

8 Tag fault and maintenance

Common faulty: Received information indicates low power.

Please contact our company for further processing.

9 Package instructions

HT-PW361-S active tags are packaged in cutter card format, and can also be customized according to customer requirements.

10 Transport and storage

10.1Transportation requirement

HT-PW361-S active tags meet the requirements of relevant standards such as highway, railway, air and sea transport.

Attention in transportation: It must be guaranteed not to be eroded by severe collision, rain, chemical corrosive drugs and harmful gases.

10.2Storage requirement

HT-PW361-S active tags long-term storage shall have the following conditions:

Environmental temperature：0℃~+50℃；

Relative humidity：≤80%；

No sharp temperature changes, no acid and other harmful gases in the surrounding air.

11 After-sale service

When users encounter unsolvable problems when using the active tags, please contact our customer service center.

FCC 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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

Contact:

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