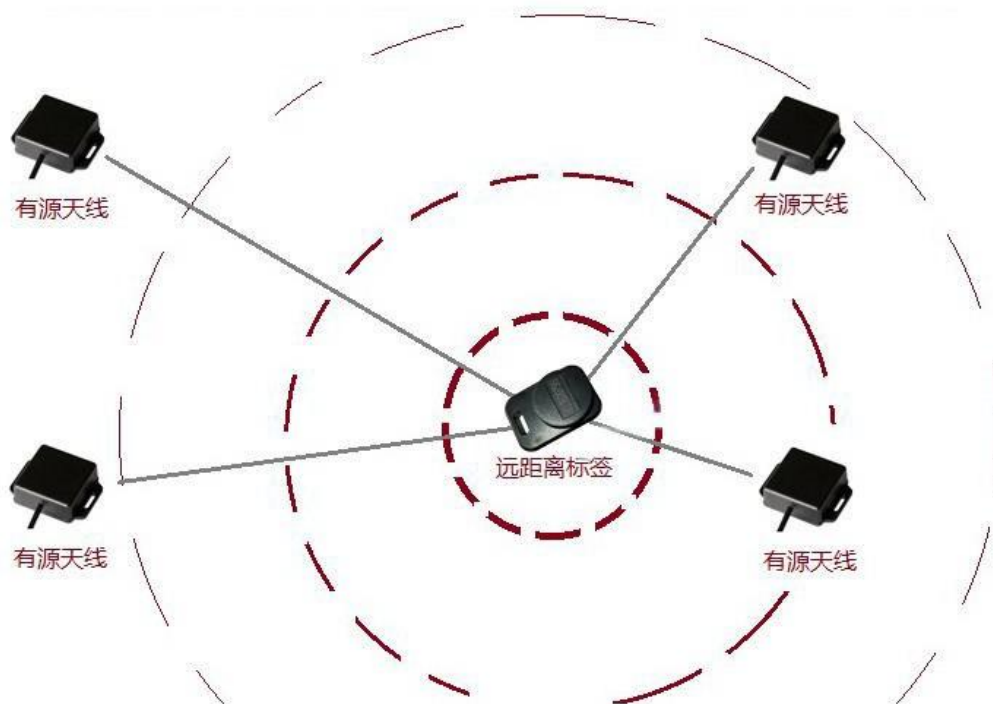




Document revision date:
11/4/2021

Product Overview

The WE-T26 long-range electronic tag is an electronic tag specially used to locate people or items. The transponder regularly broadcasts the tag ID information wirelessly to the outside world , and can be sent at a distance of up to 100 meters. The tag reader not only receives the ID information of nearby tags , but also calculates the distance of the tag from the reader based on the field strength of the wireless signal. Through a comprehensive analysis of the data received by multiple card readers, the exact location of the tag can be determined.



The electronic tag is fixed on the surface of the turnover box, material box, forklift, etc., and a number of card readers are installed around the room or on the top surface, which can realize the real-time monitoring of the location of indoor items and facilitate the tracking and finding of items. Wear the electronic tag

On the personnel, the dynamic and real-time attendance of the personnel can be realized. The electronic tag is used in conjunction with the handheld card reader, which can easily realize the item search and personnel roll call.

Positioning electronic tags are widely used in intelligent warehouse management and materials

Flow tracing, indoor navigation, personnel management, and many other application areas.

Product Features:

- 1 C2450 coin cell battery can fire 60 million times.
- There is an under-voltage reminder and a real-time power display, and the residual power can be transmitted 4.5 million times after under-voltage.
- You can select the mode of working only when you are in motion (the default is to stop working after ten minutes of stationary stationary operation).
- The housing is ultrasonically welded with ABS engineering plastic, with IP65 protection level, and can be exposed to outdoor rain.
- The wireless transmit power is 3mW, the transmit distance can be up to 100 meters, and the standby power consumption is only 2uA.
- The wireless frequency band adopts the 2.4GHz globally developed microwave frequency band, which does not require application and payment.
- It can be installed with key ring hanging, 3M adhesive adhesive paste, etc.
- The shape is a cuboid 48mm*34mm*13mm and weighs 15 grams.
- Operating temperature: -20°C ~60°C (-40°C low-temperature battery can be replaced).

Battery life assessment

Let's say the tag emits every 2 seconds.

Daily wireless transmission power consumption

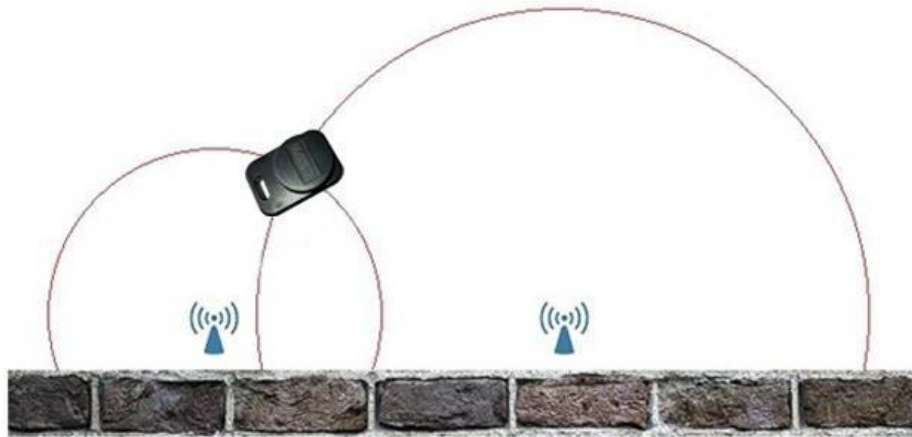
$$1800 \times 24 / 60000000 = 0.00072$$

$$1 / 0.00072 = 1388(\text{days})$$

Explanation of the principle

The electronic tag can now be recognized by a plurality of card readers within the effective distance, and each card reader within the effective range will get the distance between the electronic tag and itself, and the specific position of the electronic tag in the space may be obtained according to the test value of the card reader closest to the electronic tag 2~3.

1. The micro-base station is mounted on the wall, and the position of the e-tag can be obtained through the measurement value of the nearest 2 micro-base stations of the e-tag.



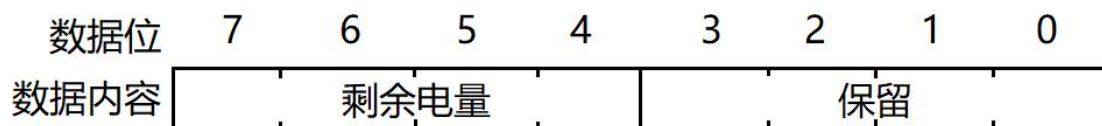
2. The micro-base station is installed on the top surface, and the position of the e-tag can be obtained through the measurement value of the nearest 3 micro-base stations of the e-tag.



tag to report data

The tag reports data once per second (which can be adjusted during production), and the reported data is submitted to the user through the card reader. It mainly includes tag ID, tag type, undervoltage reminder, extended data, etc. For different types of labels, the format of other data is the same except for "Extended Data", please refer to the instruction manual of the card reader for details.

The extended data of this tag is only one byte, as follows:



Remaining power

numeric value	Electricity
0	0%
1	10%
2	20%
3	30%
4	40%
5	50%
6	60%
7	70%
8	80%
9	90%
10 (hexadecimal "A").	100%

Installation:

Key ring hanging, cable tie binding.

Precautions for use

- 1) Keep the surface of the label dry.
- 2) Do not place it in a place with a lot of metal.
- 3) Do not place it in a confined space.
- 4) Do not place near corrosive materials.
- 5) Please use it under its normal operating temperature and humidity.
- 6) The parameters, specifications and models of product components shall not be changed at will.
- 7) Do not soak the label in water for a long time.