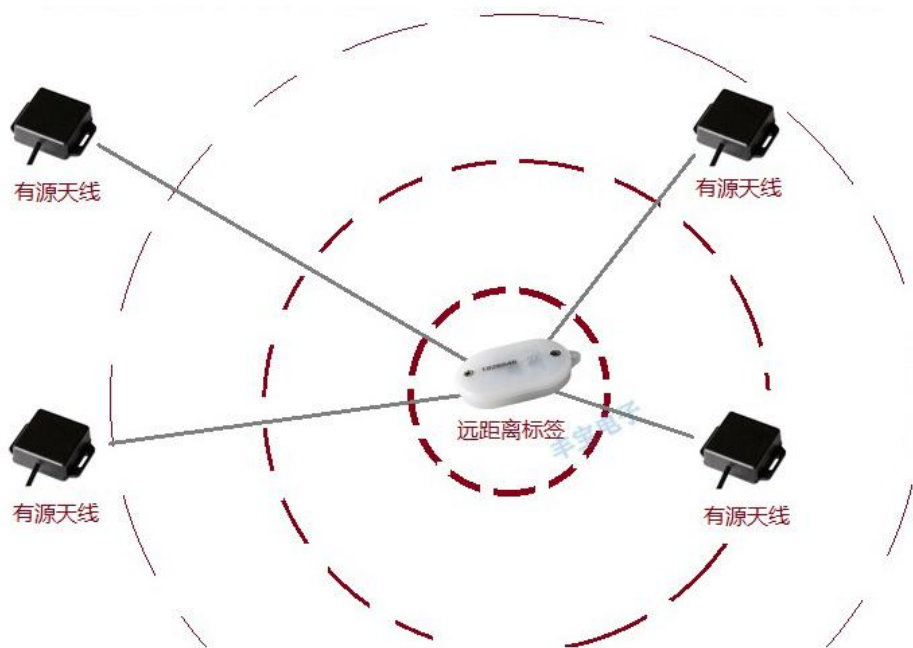




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Product overview

The WE-T56 RFID tags periodically broadcast their ID information via wireless transmission, with a maximum range of 100 meters. By deploying positioning base stations (system), the exact location of the tags can be determined. Through these base stations, handheld devices, or mobile apps, users can trigger the tags to emit audible and visual alerts, making it easier to locate them. These tags are securely attached to reusable containers, carts, workpieces, and other objects, ensuring they remain easily accessible wherever items are moved.



The warehouse management system provided for free use on computers, handheld machines or mobile phones can conveniently take stock and call the labels in the warehouse, make the labels glow and sound, avoid the loss of goods, facilitate the search of goods, and improve the efficiency of warehouse management.

The electronic tag uses a CR2032 button battery, which can meet the application demand of 1000 times of search within half a year. When the power is insufficient, there is a low power reminder, and it can still be used for 10 days after the low power.

product features

- It can emit light and sound, with 4 high-brightness LED lights and 1 electromagnetic buzzer.
- One CR2032 button battery can be recharged 18 million times.
- The total duration of audiovisual reminders is not less than 8 hours (not considering power consumption of wireless transmission).
- Under-voltage alert and real-time power display. The remaining power after under-voltage can be emitted 1 million times.
- The wireless transmission power is 3mW, the transmission distance can reach 100 meters, and the standby power consumption is only 2uA.
- The wireless band uses the 2.4GHz global development microwave band, no application and no fee.
- It can be installed by key ring suspension, 3M adhesive, etc.
- Two copper inlays and M3 nuts ensure that the upper and lower covers are tightly fastened and interlocked, and it is easy to remove and replace the battery.
- Shape and size: ellipsoid 56mm*35mm*10mm, weight 18 grams.
- Working temperature-20°C ~ 60°C (replaceable-40°C low temperature battery)

Battery life assessment

Assume that the tag uses an average of 5 minutes per day and the tag is transmitted every 2 seconds.

Daily wireless power consumption $1800 \times 24 / 18000000 = 0.00024$

Daily sound and light reminders of power consumption $5 / (8 \times 60) = 0.010427$

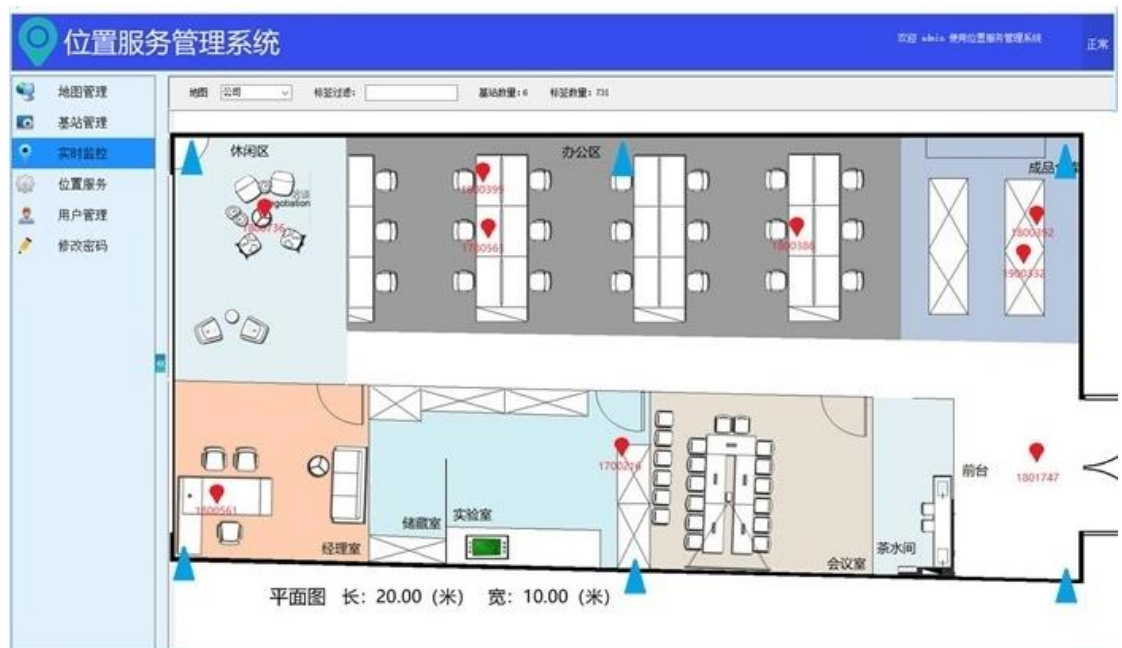
Total daily power consumption 0.010657

$1 / 0.010657 = 94$ (days)

The approximate location where the base station measurement tag is installed

By installing positioning base stations (card readers) around warehouses and workshops, the approximate location of tags can be measured. Within the effective range, each base station receives the distance between the tag and itself. Based on test values from 2-3 nearest base stations, the tag's spatial position can be determined with an accuracy of 1-3 meters.

The following figure shows:



Production management system call label

The label positioning function is implanted into the production management system. The management system can not only know the position of the label, but also call the label directly when necessary, so that the label can glow and sound. Through the audio-visual reminder, the location of the item can be easily determined, and the production process is more accurate and efficient.

The production management system sends the call command to the label positioning system. According to the current position of the label, the label positioning system sends the call command to the label from the nearest base station (card reader), and the called label sends out the sound and light reminder.



MES系统指示定位基站（读卡器）激活标签

Search for tags directly with the handheld

Even without a GPS system, you can still locate tags using handheld devices. Simply enter the tag ID directly on the device or send it via inventory management software. The handheld will initiate a search to detect nearby tags. Once the initial location is confirmed, the device sends a command to trigger the tag's signal. With audible and visual alerts, you can easily pinpoint the target. Here's how it works:

Open the handheld device and go to the "Search" page. Enter the corresponding tag code and click the "Start" button to check if the tag is nearby. If the tag is detected, the device will display its actual distance from you. You can quickly determine the tag's location based on this distance value, helping you efficiently identify the tag's area and improve search efficiency.



The searched RFID tag will emit a light (flashes continuously) to remind the user of its location. If it is still not found, you can click the speaker button at the bottom right, and the searched RFID tag will emit a "beep beep" sound to make it easier for you to find the tag.

The buzzer on the label is very power consuming, so try not to turn it on unless necessary.

Tag reporting data

The data sent by the tag wireless mainly includes tag ID, tag type, under-voltage reminder, extended data and other content. Except for "extended data", the format of other data of different types of tags is the same. For details, please refer to the user manual of the card reader.

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

数据位	7	6	5	4	3	2	1	0
数据内容		剩余电量			保留		声光	保留

BIT 1: Acoustic and light warning signs.

1: On sound and light alert 0: Off sound and light alert.

The user can use this bit to determine whether the tag has successfully received the instruction of the audio-visual alert.

BIT 4~7: Remaining power

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

Call tag data

When calling a tag, different tags have different call mode definitions, as follows:

Calling patterns	period	explain
0	2 times per second	Only the green light is flashing
1		Green light flashing + buzzer
2		Only red light flashing
3		Red light flashing + buzzer
4		Only red and green flashes
5		Red and green flashing + buzzer
8	1 time per second	Only the green light was flashing
9		Green light flashing + buzzer
10		Only red light flashing
11		Red light flashing + buzzer
12		Only red and green flashes
13		Red and green flashing + buzzer
16	2 seconds 1 time	Only the green light was flashing
17		Green light flashing + buzzer
18		Only red light flashing
19		Red light flashing + buzzer
20		Only red and green flashes
21		Red and green flashing + buzzer
24	3 seconds per shot	Only the green light was flashing
25		Green light flashing + buzzer
25		Only red light flashing
27		Red light flashing + buzzer
28		Only red and green flashes
29		Red and green flashing + buzzer
32	Chang Liang	Only the lights are green
33		Green light on + buzzer every
34		Only red light on
35		Red light on + buzzer every
36		Traffic lights all lit up
37		The traffic light is on and the
255		Stop the reminder

Under-voltage alert

When the battery is under-voltage (the charge is less than 20%), the tag will not trigger any audio-visual alerts. The red light will occasionally flash to remind you to replace the battery promptly. During low voltage, the tag will still maintain wireless transmission. After every 10 transmissions, the red light will flash once.

way to install

Key chain suspension, 3M adhesive.

Use Notes

- 1) Keep the label surface dry.
- 2) Do not put it in a place with more metal.
- 3) Do not keep it in a closed space.
- 4) Do not put it near corrosive substances.
- 5) Please use it under normal working temperature and humidity.
- 6) The parameters, specifications and models of the components shall not be changed at will during maintenance.