



Display Electronic Tag WE-TLED30

Document revision date: 2025/1/2

Product Overview

The WE-TLED30 display tag features a 2.9-inch 128×296 dot matrix ink screen, allowing users to edit and remotely transmit content to the tag's display. The ink screen maintains continuous operation without power consumption. The T63 tag functions as a standard audio-visual tag, enabling quick location through audible alerts. Additionally, screen content provides instant access to item details including name, specifications, and quantity. Existing barcode scanning software can perform standard management operations like outbound, inbound, and inventory checks by scanning the screen's barcode, effectively replacing paper labels. The tag's display content can be updated anytime, anywhere via a card issuer.

The WE-TLED30 tag continuously broadcasts ID information via wireless radio. Powered by a 650 mAh rechargeable lithium battery, it can emit 38 million signals when fully charged, with a transmission range of up to 100 meters. The screen remains lit without power consumption. It features two buttons (red and black) that can be pressed during calls to stop audio and light effects while confirming item location. Customizable buttons can be added to provide additional features per customer requirements.

After attaching tags to items, users can check nearby availability with handheld devices and activate the tags. The audio-visual alerts enable quick location in noisy environments. Once the positioning system is deployed, real-time locations and historical trajectories of items become accessible, allowing effortless tracking and instant alerts for lost items. Existing enterprise management systems (e.g., ERP, MES) can scan screen barcodes to perform daily management tasks, completely replacing paper labels. Wireless screen updates are fast, convenient, and unlimited in frequency.

Product Features

- The wireless transmitter operates at 4.5dBm with a transmission range of up to 100 meters.
- The wireless frequency band operates on the globally developed 2.4GHz microwave spectrum, requiring no application or payment.
- 2.9 An ink screen with a 2.9-inch display can show names, specifications, barcodes, and other information at a 128×296 pixel resolution.
- The card reader can modify the name, specification and barcode of the item displayed on the screen at a distance.
- Various alert methods including red light, green light, yellow light, and buzzer are available for quick and easy object location.
- The device features a button to disable audio and lighting, with customizable red and black button functions to meet specific client requirements.
- It features a built-in 650mAh rechargeable lithium battery, capable of 38 million discharge cycles.
- The battery provides 36 hours of continuous audiovisual alerts when fully charged, with sound intensity reaching 85 decibels.
- Monitor battery level in real time and report the remaining percentage.
- Measuring 128mm x 45mm x 13.5mm, this industrial-grade plastic enclosure is built to be durable and robust.
- The tags can be equipped with magnets for easy attachment to various iron shelves, carts, boxes, and surfaces of items.
- The weight of the device is 60 g and the working temperature is -20°C to 70°C.

Method of Estimating Standby Time

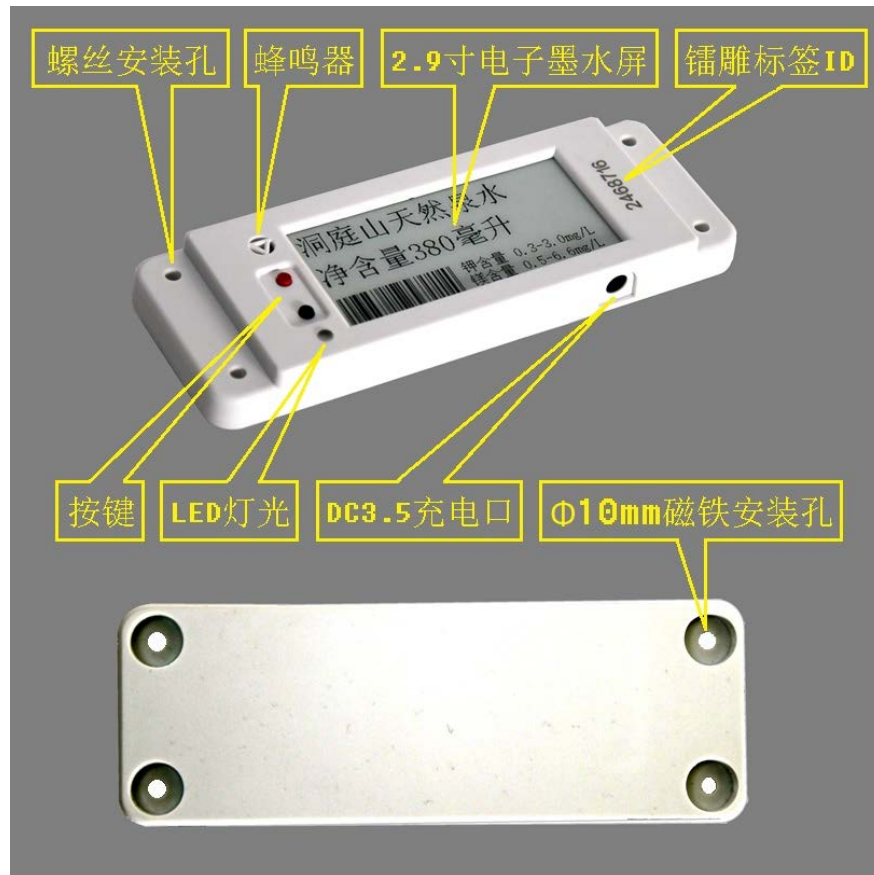
Frequent transmission at 1 Hz: 1-year standby time, 1-minute light alert per call, and 4-hour reduction in standby time.

Frequent transmission at 2 Hz: 2-year standby time, with 1-minute light alert per call, reducing standby time by 8 hours.

and so on .

The slower the transmission frequency, the less power it consumes, but the longer the reaction time for the call light alert.

Component Description



parametric description :

Project	Explain
Format	128 mm long, 45 mm wide, and 13.5 mm high
Fixed pin position	4 $\Phi 3.3$ mm holes, with 113mm center distance between long-side holes and 30mm between short-side holes.
Buzzer	The sound pressure is 85dB, and the frequency is 2.7K.
Key	Press either the red or black button to turn off the screen, then press the other to restore display. Press either button to end the call.
Red and green dual-color lights	The indicator light responds to the call mode flash.
USB	The DC3.5 power adapter features a 5V charging voltage and an internal 650mAh lithium battery that charges fully in 30 minutes.
Screen	128*296 dot matrix, black and white dual-color ink screen. It does not consume power during normal display. The displayed content can be flexibly edited through the card-issuing software.
Magnet mounting hole	The back features 4.5 holes for mounting $\Phi 10$ mm magnetic screws.

Issue Cards for Labels

The WE-USBCRS02 USB card reader is designed for issuing cards to screen display audio-visual tags. For detailed specifications, please refer to the data manual of the WE-USBCRS02 card reader.



Open the dedicated card reader software for the display label, locate the serial port of the USB card reader, and enable the serial port.



串口: COM6 波特率: 115200 关闭串口

标签ID: 扫描附近 下载批量模板 批量发卡 预览模板 保存模板

文本一: 位置: X 3 Y 3 大小: 宽度 286 高度 32 字体: 小 中 大 内容: 洞庭山天然泉水

文本二: 位置: X 3 Y 45 大小: 宽度 180 高度 24 字体: 小 中 大 内容: 净含量380毫升

条形码: 位置: X 3 Y 90 大小: 宽度 286 高度 38 线条: 细 粗 内容: 6936770111520

文本三: 位置: X 135 Y 88 大小: 宽度 160 高度 40 字体: 小 中 大 内容: 钾含量 0.3-3.0mg/L 镁含量 0.5-

文本四: 位置: X Y 大小: 宽度 高度 字体: 小 中 大 内容:

(0,0) 洞庭山天然泉水 (296,0) 净含量380毫升 (0,128) 钾含量 0.3-3.0mg/L 镁含量 0.5-6.5mg/L (296,128)

☒ 文本一 ☒ 文本二 ☒ 文本三 ☐ 文本四 ☒ 条形码 发卡

小、中、大三种字体的高度分别为16、24、32。

[09:27:05] 标签2468716更新成功
[09:27:05] 总条数2条, 其中1条需要更新, 1条更新成功
[10:05:01] 打开数据文件:D:\公司产品\屏显声光标签DST-63\3.屏显标签发卡软件\发T63屏显标签\batchdata.csv
[10:05:01] 提示: 标签2468717 未识别
[10:05:01] 格式错误: 数据文件第3行 有文本内容过长
[15:53:17] 串口已关闭
[15:54:03] V1.1_20241114
[15:54:03] 串口已打开

清空 保存

After opening the serial port, you can manually enter the tag ID or bring the tag near the card issuer and tap the "Scan Nearby" button to automatically recognize the tag ID. If the tag is not easily accessible nearby, you will need to enter the tag ID manually.

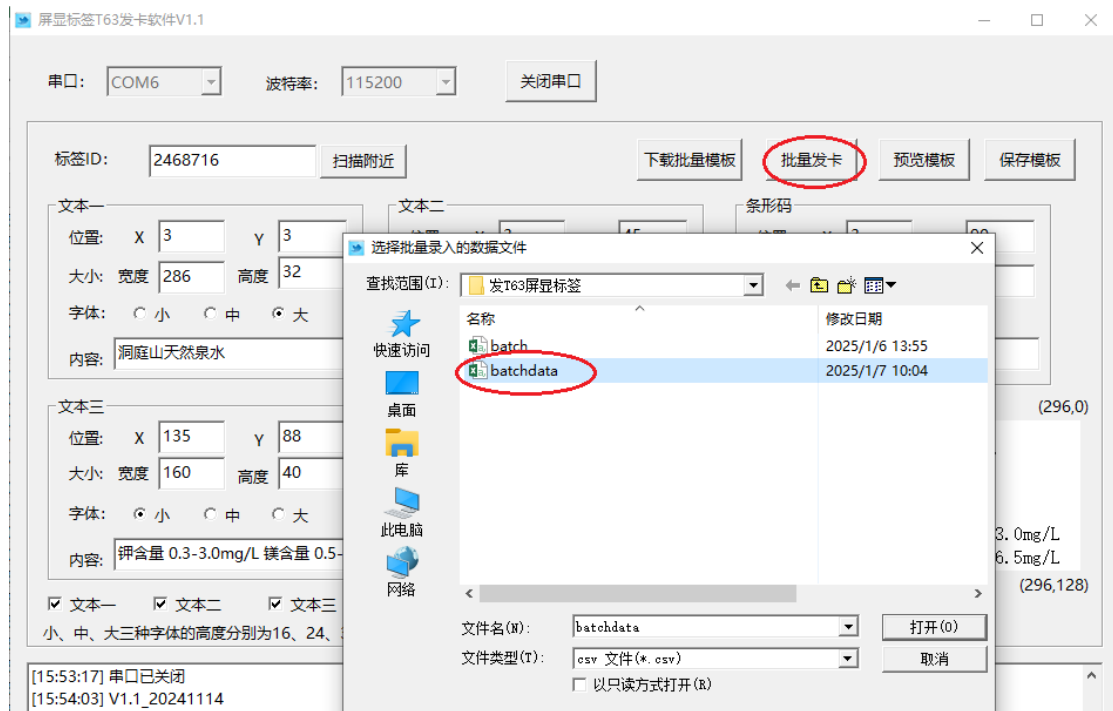
Currently, you can generate up to 4 text messages and 1 QR code on the screen. Use the editing software to input the position and size of each display message on the screen, then enter the data content. Click the "Preview Template" button to view the edited screen display.



If the preview meets the requirements, click the "Send Card" button to send the content to the e-tag. The content displayed on the tag is exactly the same as the preview in the computer software.



You can also click "Batch Issue Cards" to import data from the spreadsheet and modify the display content of a batch of labels.



If you're unsure about the file format for batch card issuance data, click the "Download Batch Template" button first. It will automatically generate a "batchdata.csv" file in your current path. You can open it with Excel and fill in the data as required.

Label Report Extension Data

The data transmitted by the tag includes the tag ID, tag type, under-voltage alert, and extended data. For different tag types, the format of all data except "extended data" is the same. For details, refer to the reader's user manual.

The extended data of this tag is three bytes, as follows:

数据位	7	6	5	4	3	2	1	0
字节0内容			剩余电量			保留	声光	按键
字节1内容								屏显内容特征值 (低字节)
字节2内容								屏显内容特征值 (高字节)

Byte 0-BIT 0: Confirmation key

1: The "Confirm" button was pressed. 0: The "Confirm" button was not pressed.

The user can determine whether a button action was performed on the label based on this bit. In practice, the application system uses this flag to confirm if the user has found the item.

Byte 0-BIT 1: Audio-visual reminder sign.

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

The user can judge whether the tag has received the sound and light reminder instruction successfully according to the bit.

Byte 0-BIT 4~7: Remaining battery

Numeric value	Quantity of 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%

Byte 1/2: Screen display content feature value

The display label stores content (item name and barcode) internally. After CRC16 calculation, a 2-byte characteristic value is generated and included in the extended data. Users can verify if the displayed content matches their system data by checking this value. Any discrepancies require immediate system update.

In this way, when facing a large number of labels, the user can randomly modify the display content of some labels, and the card issuing device will automatically find the modified labels on the screen to update, without having to update all the labels, which greatly improves the efficiency of display content update.

Call Label Data

Different labels have different call mode definitions. This label is defined as follows:

Call mode	Period	Explain
0	1 2 times per second	Only green lights are flashing
1		Green light flashing + buzzer sounding
2		Red light only
3		Red light flashing + buzzer sounding
4		Only the yellow light is flashing.
5		Yellow light flashing + buzzer sounding
8	1 1 second	Only green lights are flashing
9		Green light flashing + buzzer sounding
10		Red light only
11		Red light flashing + buzzer sounding
12		Only the yellow light is flashing.
13		Yellow light flashing + buzzer sounding
16	2 1 second	Only green lights are flashing
17		Green light flashing + buzzer sounding
18		Red light only
19		Red light flashing + buzzer sounding
20		Only the yellow light is flashing.
21		Yellow light flashing + buzzer sounding
24	3 1 second	Only green lights are flashing
25		Green light flashing + buzzer sounding
25		Red light only
27		Red light flashing + buzzer sounding
28		Only the yellow light is flashing.
29		Yellow light flashing + buzzer sounding
32	Always on	Only green light is on
33		Green light on + buzzer sounds every second
34		Red light only
35		Red light on + buzzer sounds every second
36		Only the yellow light is on
37		Yellow light on + buzzer sound
255		Stop reminder

Find Item Confirmation

After locating the item via audio-visual alerts, the user may press either the red or black button on the tag. The tag will immediately terminate the alerts, and the subsequent ten wireless reports will include a button-pressed marker. Upon receiving this marker, the application system should confirm the user has located the tag.

Undervoltage Alert

When the battery level drops to 20%, the tag will display a low-voltage indicator, and its red light may briefly flash to remind you to recharge promptly.

When the battery level drops below 10%, the tag stops its audio-visual alert function. The tag can still be read, but cannot be activated. The remaining power is reserved for wireless reporting and low-voltage red light alerts until the battery is completely drained.

Way to Install

Magnetic, adhesive, or screw fixation.



电子标签配磁铁安装



电子标签配粘胶安装

It can be directly secured with screws, using the four screw holes.



Usage Notes

- 1) Keep the label surface dry.
- 2) Do not place it in a metal-rich area.
- 3) Do not store in a closed space.
- 4) Do not store near corrosive substances.
- 5) Use under normal operating temperature and humidity conditions.
- 6) The parameters, specifications, and models of product components must not be altered without authorization during maintenance.
- 7) Not water-resistant.