Electronic Shelf Label

SPECIFICATION

Product Name：	2.1 inch Electronic Shelf Label
Model：	SETR0213 series
Description：	250x122 Pixels Based on Cloud Platform(optional) Communication band 433/868/915 MHz

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REV	DESCRIPTION	RELEASE DATE	EDITOR
2.0	Preliminary Release	2017/3/1	Ning

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1. General Description

SERTAG's platform is a complete hardware-software system combining 433Mhz wireless communication and ESL tags, in-store navigation, ultra-low power displays, merchandising supports and tools and server infrastructure (cloud, distributed or in- store). SERTAG's platform is open to the third-party technologies and enables interconnection with any situation software or system. It offers the flexibility you need to anticipate and overcome any challenge.

SETR0213 series ESL tags with high definition displays can be adapted to any sales scenarios. It supports text, promotion, QR code or barcode and can be reused with no paper required. It can be used for different application, such as the retails, warehouses and logistics management etc.

2. Feature

Black/white color or Black/white/red or Black/white/yellow colors are available Cloud or local Server based options.
Communication band is 433/868/915 MHz
E-Paper displays,250x122 pixels full graphic,
Perfect for the retails, warehouses and logistics management.

3. Specification

3.1 2.13 inch Electronic Shelf Label

■ **Feature**

NO.	ITEM	DATA
1	Part NO.	SETR0213N/R/Y-H
2	Outline	66mm(V) ×37.5mm(H)×13.7mm(D)
3	Weight	36g
4	Color Display	Black、White、Red/Yellow
5	Display Size	2.13 inch
6	Display Resolution	250(H)×122(V)
8	Communication Band	433MHz/868 MHz /915 MHz
9	Communication Protocol	Private Protocol
10	Response Time	9S(Configurable)
11	Battery Life	Not less than 5 years，Replaceable
12	Battery	CR2450*2
13	Operating temperature	0~50℃
14	Storage temperature	-10~60℃
15	Operating humidity	Less 75%
16	Operating Voltage	2.4V~3.6V

■ **Function**

NO.	ITEM	DESCRIBE
1	Image transmission	Support full screen image wireless transmission, display the complete image data.
2	Partial image transmission	Support local small picture wireless transmission, update display partial image
3	Chinese character, English, symbol font	The tag integrates Unicode encoding more than 27000 Chinese character font, English and symbol font library, and supports coding format wireless transmission.
4	Partial text	Support partial areas to update text, numbers, symbols
5	Frequency hopping anti-jamming	System concurrency and anti-interference through this function
6	Batch processing mode	This mode can achieve 10 seconds update the 100 tags of the high-speed update function, depending on the customer system.
7	Temperature detection	Each tag supports temperature sampling, and the system can be read.
8	Electric quantity	● Each tag supports the power sampling function. The system

| 9 | LED light flicker setting | • Support 3 color independent control lights
• Each light flashing frequency is 1 times per second
• Each LED supports the number of flashing lights users can set |
| 10 | Storage page | Support to save 4 display pages |

| | detection | can be read, depending on the client system
• Low power alarm, the label displays the low power sign in the touch area when it is out of power, and the system background prompts. |

■ Functional description of tag font library coding format

The tag can realize user defined display template. The display capability is as follows:

- ➢ Support Chinese characters coding to Unicode, which can display more than 27000 Chinese characters, and support arbitrary areas to display 12 (H) * 12 (V), 16 (H) * 16 (V), 24 (H) * 24 (V), 32 (H) * 32 (V), 48 (H) * 32 (V), 64 (H) * 32 (V)
- ➢ The support character code is Unicode, which can display 96 numbers, letters and symbols of the 0x0020~0x007F interval, and support the dot matrix characters that display 7 (H) * 5 (V), 12 point unequal width, 16 point unequal width, 24 point unequal width and 32 point unequal width in any area.
- ➢ Support the display of battery power symbols in any area.
- ➢ Support any position to draw arbitrary length horizontal and vertical lines.
- ➢ It supports the anti color display function of Chinese characters, characters, horizontal lines and vertical lines.
- ➢ Support any area to display EAN13 and Code128-B standards (refer to national standard "GB/T 18347-2001") bar code, EAN13 standard size 26 (H) x 113 (V), Code128 standard size 20 (H), and two bar codes that support doubling, removing numbers, arbitrarily designated height (more than 16 rows).
- ➢ It supports the display of dot matrix images in any area. The dot matrix image supports 1 times the magnification function, and the dot matrix image can be extended to full screen dot matrix.
- ➢

3.2 Base station /Access Point(AP)

Item	Specification
Model	SETAP01R1
Communication	433Mhz
Number of EGateway1C Cover	Each covers> 500 ESLs
Covered distance	30m-50m (Radius)
Size	120mm(V) *120mm(H)*30mm(D)
Working Temperature	-10°C ~ + 55°C
Power supply	DC +5.0V
Port to Server	Ethernet cable/RJ45
Installation way	Screw
Weight	350g

3.3 Shelf Rail and Dismounting tool

4. Product Series

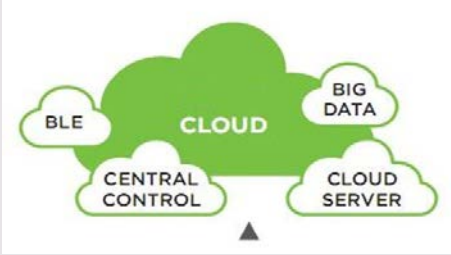| Specification	Front Image	Back Image
Model: SETR0213N Frame Color: White Pixel Color: Black, White		
Model: SETB0213R Frame Color: White Pixel Color: Black, White, Red		

Model: SETR0213Y Frame Color: White PixelColor:Black, White,Yellow		
Model: SETR0213L Frame Color: White PixelColor:Black,White Low temperature (- 25℃~15℃)		

5. Network structure

There are two types of network structure for SERTAG Label system. It is cloud network version and the single store version. They connected through wireless communication between the ESLs and the base stations(AP) and it is easy to refresh all the display content.
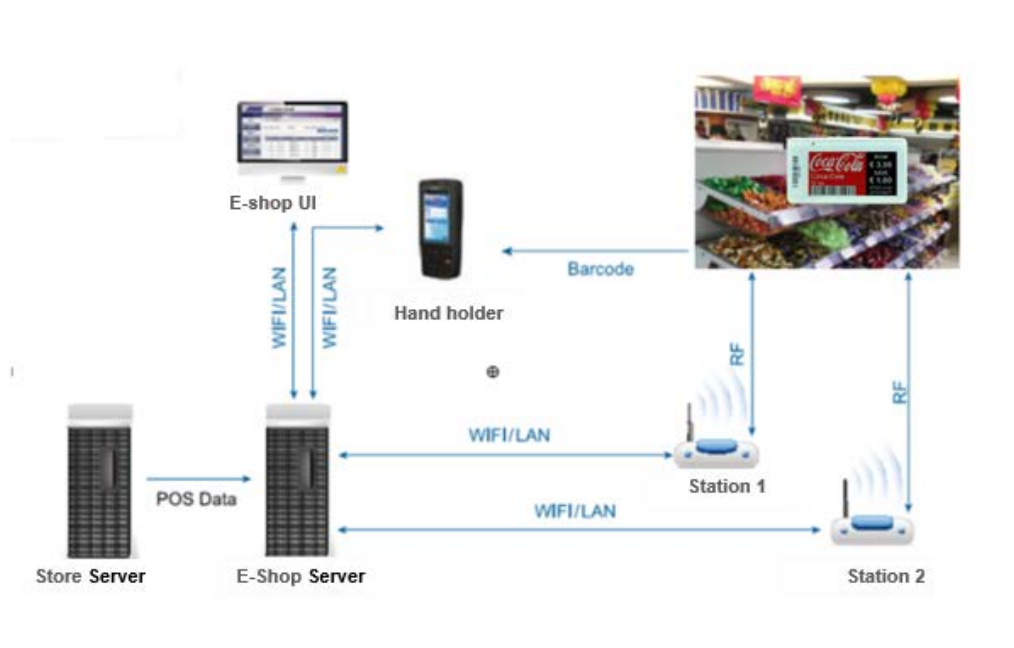
6. **Why Select SERTAG Label**

Advantages	Pictures
ESL Cloud • ESL Cloud system is a cloud server based complete solution with hardware and auto-updating software. • All ESL tags can be controlled anytime and anywhere with cloud server. • All data can be shared on the cloud.	
API interface • provided API interface to the third- party, for embedding our ESL into their own system, and providing more powerful, flexible and competitive solution to end customers.	
Superior readability • High Contrast: Use E-paper display with black and red on 'paper-white' background. • Near 180° viewing angle with excellent readability。	
Custom-made Template design • It's easy to edit and create display templates. • You can use any font in your system. It also enable any combination of text and images including QR code, Barcode, logos, pictures, etc. • Negative explicit mode and special symbols are available.	
Versatility • ESLs available in a range of different sizes and specifications to suit all requirements across an entire retail estate. • It can be customized with many functions to enhance customers' experience.	