

ESL 测试样品	
产地:Zhu hai	
规格: 20x10	TEST:001
单位:Piece	
888. 00	

ELECTRONIC SHELF LABEL SYSTEM(ESL)

ESL电子货架管理系统产品手册

About Us | 关于我们

Zhuhai EastSun Co., Ltd. was established in 2012, is mainly engaged in radio frequency identification (RFID) hardware and services to develop customized products and industry application solutions.

EastSun's main products include RFID tags, electronic price label (ESL), realized for the retail, logistics, warehousing and other industry application solutions. Products are sold to Europe, America and Southeast Asia, to establish a close long-term partnership of deep industry recognition and support customers over the years established a good reputation and brand image.

EastSun has experienced R & D team, first-class sales force and perfect service system, with a strong product development capabilities and market coverage to become the leader in radio frequency identification industry.

珠海东之旭科技有限公司2012年成立，主要从事无线射频识别系统（RFID）定制化硬件产品和行业应用解决方案的开发与服务。

东之旭主要产品包括RFID电子标签、电子价格标签（ESL）、实现针对零售、物流、仓储等多种行业应用解决方案。产品主要销往欧美及东南亚地区，与客户建立紧密长远的合作伙伴关系深获业界的肯定和支持，多年来建立了良好的企业信誉和品牌形象。

东之旭具有资深的研发技术团队、一流的销售队伍和完善的服务体系，以强大的产品开发能力和市场覆盖能力致力于成为射频识别行业的领军品牌。

Needs analysis | 需求分析

ESL electronic price tag system

Help worldwide retail meet future business challenges

With the rapid development of electronic business, the store operations have been a huge impact:

- Franchise store price confusion
- Promotional activities implementation period is too long and activity low
- High operating costs
- Products' info simplistic
- Serious backlog of inventory

ESL电子价签系统

助力全球零售业应对未来商业挑战

随着电商的飞速发展，实体店经营受到巨大冲击：

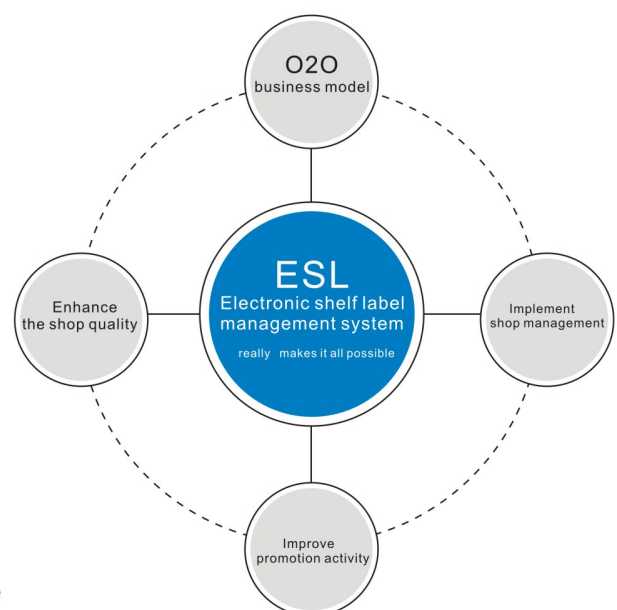
- 加盟店价格混乱
- 促销活动实施周期过长活跃度过低
- 运营成本高昂
- 产品信息过于简单
- 库存积压严重

O2O focus on building the business model to enhance the shop quality and implement more sophisticated shop management, improve business promotion activity.

EastSun (ESL) Electronic shelf label management system really makes it all possible

重点建设O2O商业模式，提升开店质量，实施更精细的店铺管理，提高商业推广活动活跃度。

东之旭（ESL）电子货架标签管理系统，真正使这一切成为可能



ESL Overview | ESL概述

ESL Introduction >> ESL介绍

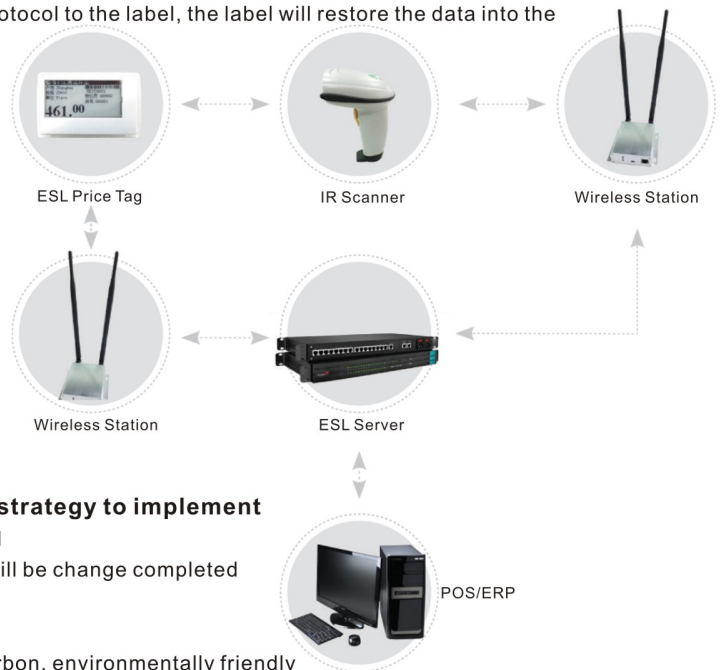
ESL electronic shelf label system consists of a wireless base station, tag, wireless barcode scanner, ESL software and ESL server and other components.

ESL电子货架标签系统由无线基站、标签、无线条码扫描枪、ESL软件和ESL服务器等部分组成。

Working principle>> 工作原理

1. Product information from the POS / ERP system sends to the ESL server via Ethernet;
2. ESL middleware software translates the information into an electronic shelf label ESL system internal data format;
3. ESL server software detects changes in the case of prices and other information will be immediately transmitted to the radio base station via Ethernet;
4. Then sent by the radio station through independent protocol to the label, the label will restore the data into the visual information and display it.

- 1.商品信息由POS/ERP系统经以太网送达ESL服务器；
- 2.ESL中间件软件将这些信息转换为ESL电子货架标签系统内部数据格式；
- 3.ESL服务器软件检测到价格等信息变动情形时，将立即通过以太网传输到无线基站；
- 4.再由无线基站通过自主协议发送到标签，标签随后将这些数据还原成可视信息显示出来



ESL Features >> ESL功能

Centralized control end price, flexible pricing strategy to implement

Price info, data and POS machines fully synchronized

Headquarters change all the price, the branch price will be change completed within two minutes

Reduce operating costs

Once installed, permanent use, energy-efficient, low-carbon, environmentally friendly
Reduce the price tag update replacement costs, increase revenue and profits stores

Accurate and reliable price data

Mature data validation mechanism

Stable wireless communications technology, the labels automatically find the best data propagation path, will not affect the system working as some failure of the coordinator.

Promotional tool

Can be set the label background color and lighting pattern, such as flashing lights and other long

Guide consumers noticed Promotional Products

E-commerce

Record customer demand with membership card, deliver promotional information timely

Recording customer shopping habits with shopping cart, customer analysis of consumer psychology, the way to improve the display of goods, increased turnover.

终端价格集中管控，灵活实施价格策略

- 价格与数据及POS机完全同步
- 可由总部远程发布变价，全国终端店2分钟内全部完成变价

一劳永逸，降低运营成本

- 一次安装，永久使用，节能、低碳、环保
- 减少价格标签更新替换的成本，增加分店的营收及利润

准确可靠的价格数据

- 成熟的数据校验机制
- 稳定的无线通信技术，标签自动寻找最佳数据传播路径，不会因为某个协调器失效而影响系统工作。

增加营收的促销工具

- 可由系统控制标签背景颜色和点亮模式，如闪烁、长亮等
- 引导消费者注意到促销的产品

引入电子商务概念

- 配合会员卡记录客户需求，适时传递促销信息
- 配合购物车记录顾客购物习惯，分析顾客消费心里，改进货品陈列方式，增加营业额

Product Advantage | 产品优势

System Architecture>>

Star schema and POE technology, the system can be installed without electricity wiring, saving installation costs, but also eliminates the installation of power systems due to safety hazards and inspection work;

System Operation only a scanner, without typing any information to complete the function. Scanner with roaming capabilities, you can automatically access at any base station can check the monitoring range, to achieve the best data transmission;

Label design clever installation structure, convenient loading and unloading clerk along with anti-theft feature;

ESL systems and POS / ERP system data interface is simple, no database release any privileges.

Hardware>>

Label, the base station and scanner synchronous design, the use of independent communication protocols and networking technologies;

Hardware encryption and data compression technology to achieve rapid, low consumption, efficient and accurate system operation;

The minimum system configuration, each base station can support 2000 label, plug and play, easy to install;

Software>>

The interface is simple, feature-rich;

Automated software management mechanism, fully Plug & play operation;

Both PC and mobile management platform, easy operate in simple and intuitive.

系统架构>>

星形架构及POE技术，系统安装无需电力布线，既节省了安装费用，又消除了安装电力系统带来的安全隐患和检查工作；系统操作仅需一只扫描枪，无需键入任何信息即可完成各项功能。扫描枪具备漫游功能，在任意基站可检监测的范围内都可以自动接入，实现最佳数据传输；标签设计巧妙的安装结构，方便店员装卸同时具备防盗功能；ESL系统和商超POS/ERP系统数据接口简单，无需数据库释放任何权限。

系统硬件>>

标签、基站和扫描枪同步设计，采用自主通讯协议和组网技术；
采用硬件加密和数据压缩技术，实现快速、低耗、高效和精准的系统运行；
最小系统配置，每个基站可支持2000个标签，即插即用，安装便捷；

系统软件>>

界面简洁，功能丰富；
全自动软件管理机制，实现完全即插即用运行；
兼具PC和手机管理平台，管理员操作简易直观。



Series Products | 系列产品介绍

Model: E-E21

Display Specifications: Dot Matrix EPD2.13 inches,
212 × 104 pixels

Dimensions: 67mm × 42mm × 12mm

Working frequency: 433 Mhz/ 868Mhz / 915Mhz

Communication : distance 30m

Working life: more than 5 years

Operating temperature: 0 ° C ~ 50 ° C



产品型号: E-E21

显示规格: 点阵式EPD2.13英寸, 212×104像素

外观尺寸: 67mm×42mm×12mm

工作频段: 433 Mhz/868Mhz/915Mhz

通讯参数: 距离30m

工作寿命: 5年以上

工作温度: 0 ° C ~ 50 ° C

Model: E-E29

Display Specifications: Dot Matrix EPD2.9 inches,
296 × 128 pixels

Dimensions: 93mm × 49mm × 13mm

Working frequency: 433 Mhz/ 868Mhz / 915Mhz

Communication : distance 30m

Working life: more than 5 years

Operating temperature: 0 ° C ~ 50 ° C



产品型号: E-E29

显示规格: 点阵式EPD 2.9英寸, 296×128像素

外观尺寸: 93mm×49mm×13mm

工作频段: 433 Mhz/868Mhz/915Mhz

通讯参数: 距离30m

工作寿命: 5年以上

工作温度: 0 ° C ~ 50 ° C

Model: E-E42

Display Specifications: Dot Matrix EPD 4.2 inches,
400 × 300 pixels

Dimensions: 150mm × 120mm × 20mm

Working frequency: 433 Mhz/ 868Mhz / 915Mhz

Communication : distance 30m

Working life: more than 5 years

Operating temperature: 0 ° C ~ 50 ° C



产品型号: E-E42

显示规格: 点阵式EPD 4.2英寸, 400×300像素

外观尺寸: 150mm×120mm×20mm

工作频段: 433 Mhz/868Mhz/915Mhz

通讯参数: 距离30m

工作寿命: 5年以上

工作温度: 0 ° C ~ 50 ° C

Model: E-SO1 (wireless infrared scanner)

Dimensions: 155mm × 80mm × 55mm

Decoding capability: UPC / EAN, Code128,
Code39, Code39Full ASCII, Codabar,
industrialCode93, MSI, Code11, ISBN, Chinapost,
etc.

Working frequency: 433 Mhz/ 868Mhz / 915Mhz

Communication : distance 40m

Battery capacity: 1000mA

Charging power supply: 5VDC / 1A

Weight: 132g

Operating temperature: 0 ° C ~ 50 ° C



产品型号: E-SO1(线红外扫描枪)

外观尺寸: 155mm×80mm×55mm

解码能力: UPC/EAN、Code128、Code39

Code39Full ASCII、Codabar、industrial

Code93、MSI、Code11、ISBN、Chinapost、etc.

工作频段: 433 Mhz/868Mhz/915Mhz

通讯参数: 距离40m

电池容量: 1000mA

充电电源: 5VDC/1A

重量: 132g

工作温度: 0 ° C ~ 50 ° C

Model: E-AO1 (wireless base station)

Dimensions: 105mm × 98mm × 28mm

Working frequency: 433 Mhz/ 868Mhz / 915Mhz

Network connections: Ethernet 10M / 100M

Communication : R =40m

Power supply: 5VDC / 1A

Weight: 168g

Operating temperature: 0 ° C ~ 50 ° C



产品型号: E-AO1 (线基站)

外观尺寸: 105mm×98mm×28mm

工作频段: 433 Mhz/868Mhz/915Mhz

网络连接: Ethernet 10M/100M

通讯参数: 半径40m

工作电源: 5VDC/1A

重量: 168g

工作温度: 0 ° C ~ 50 ° C

ESL Demonstration process (EPD section)

ESL 演示流程(EPD部分)

Ready to work:

1. Company install the software, all the hardware had communication each other.
2. Fill some goods' info in the software database.
3. Adjust the ESL software parameters, such as demonstration templates, update cycle, etc.

A. Wake up the label

The factory default setting and storage modes of the label are deep sleep, the tag is not working. After completion of ESL environment to build and work, in close contact with the scanner tab to wake up, make it into work mode.

B. Scanner binding

The labels need to be bound with commodity product information to display. Scanner scan the goods' bar codes and labels ID, It will "Beep" when they binding successful, other voices express bind operation failed.

C. Change one price tag

Binding one goods and one price tag with the scanner, the price tag will display the goods' information after it had binding successful.

D. Change bulk price tag

Binding all price tags in one goods with the scanner. Change them by the software.

E. Template Setting

Any can be display as the electronic paper labels in dot matrix screen.

F. Labels sleep

Removed the price tag from the shelves or in storage, in order to achieve conserve battery life, can shut down it by scanner, and put it into a deep sleep mode.

准备工作:

- 一.演示的计算机测试好ESL软件和硬件连接均正常;
- 二.在ESL软件数据库录入若干商品数据的实例。
- 三.调整好ESL软件的参数,如演示模版、根据标签数量和演示效果调整更新周期等。

1.标签唤醒

标签出厂和入库模式均为深度睡眠模式,此时标签不工作。ESL环境搭建完毕并正常工作后,用扫描枪近距离接触标签即可唤醒,使其进入工作模式。

2.扫描枪绑定

标签需要与商品进行绑定才能显示商品信息。用扫描枪分别扫描商品的条码和标签上的条码,听到扫描枪发出“嘟嘟”声则表示绑定成功,其他声音表示绑定操作失败。

3.单个变价

用扫描枪绑定一个商品和一个标签来完成标签和商品绑定,绑定成功后该标签即可显示商品的信息。

4.批量变价

把演示的所有标签绑定同一个商品,在软件上改变此商品的价格来完成标签集中快速的改变价格信息。用来演示ESL系统大批量变价的响应速度。

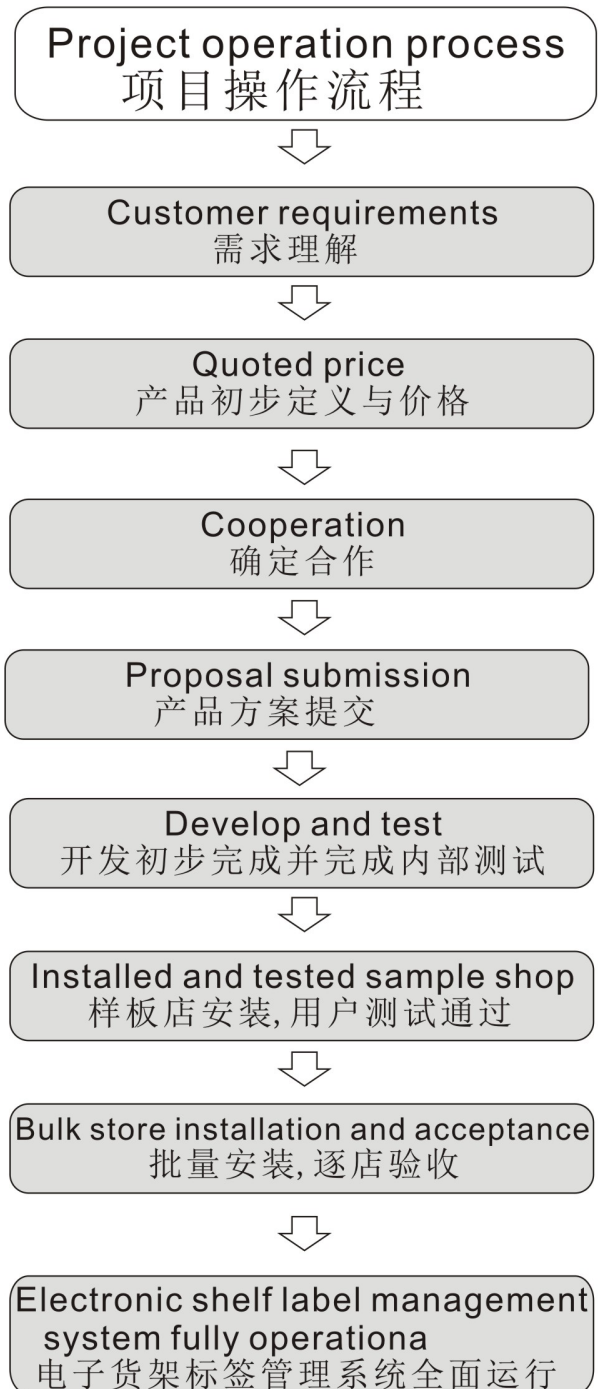
5.模版变更

电子纸标签的优势就在于它的屏幕是点阵显示的,可以设计出不同风格的显示效果,以达到满足美观、习惯和有效信息的效果。

6.标签睡眠

标签下架或入库,为了达到节省电池的使用寿命,可用扫描枪将标签关机,使其进入深度睡眠模式。

Project operational processes | 项目操作流程





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