

ESL Solutions

E-Paper Display Technology

Wireless Communications



Mounting systems for any shelf type



ESL Overview**Electronic Shelf Labeling (ESL): The Solution Transforming Today's Retailers**

Today's savvy retailers are casting a critical eye to determine how to optimize and enhance their store operations. Three key areas under close scrutinization are pricing, promotions and costs. Opticon's Electronic Shelf Labeling (ESL) solution addresses these key areas as ESL allows retailers to instantly and accurately execute price changes and promotions anytime to any store shelf from a centralized location. In addition, ESL eliminates the paper labels that are often changed weekly in stores - freeing up labor and reducing paper waste.

Opticon's wireless ESL system is optimized for the retail industry as it's based on a innovative radio architecture and e-paper tags and displays that provide advantages in performance, coverage, cost and power consumption. Opticon's end-to-end solution aims to dramatically impact how retailers operate their businesses providing a superior platform that can improve a retailer's profitability and enable new customer-facing applications, promotions and loyalty programs.

**The Benefits of ESL**

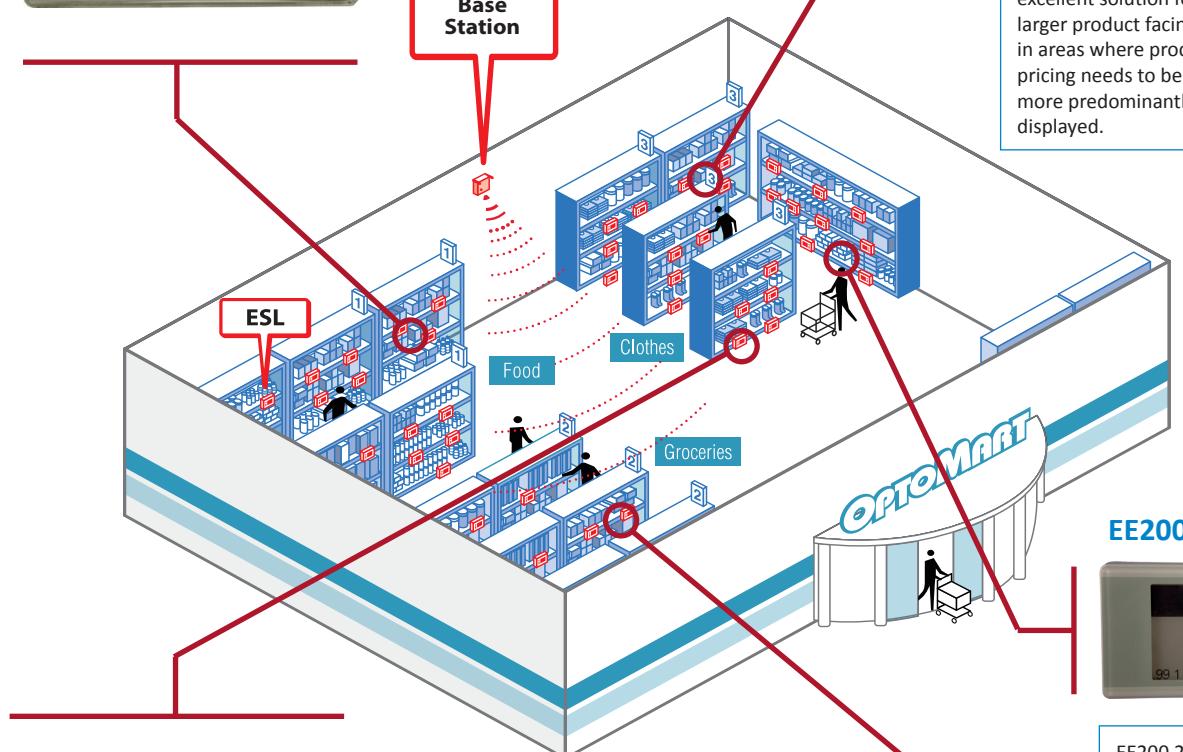
- Ensures Accurate Pricing and Product Information
- Enables On-Demand, Real-Time Pricing Promotions
- Improves Margin and Increases Sales
- Reduces Labor Costs and Errors
- Enhances Customer Loyalty and Satisfaction
- Integrates with Existing Retail Systems
- Centralized Administration of all Devices with Full Visibility
- Create In-Store Marketing and Promotion Centers
- Intelligently Manage Shelf Layout
- 100% Content Flexibility Allowing for Future Updates
- System can be Deployed as Shelf Tags, Overhead Displays, or as End Caps and Kiosks
- No Expensive Back-Office Server Infrastructure
- Strong Return on Investment, Easy to Maintain



EE441

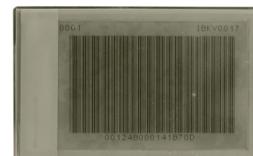


EE441 4.41" ESL tag can be used to highlight product promotions or where more detailed product information is required such as in the healthcare or electronic departments.



ESL in the Store

EE270



EE270 2.7" ESL tag is an excellent solution for larger product facings or in areas where product pricing needs to be more predominantly displayed.

EE200



EE200 2" ESL tag can be used on shelves with smaller product facings and in peg hooks areas.

EE740



The EE740 7.4" ESL tag can be deployed on end of the aisle promotional areas or in locations where the tag needs to be more viewable such as room signs, upper level shelves, bulk item storage or warehouse racks.

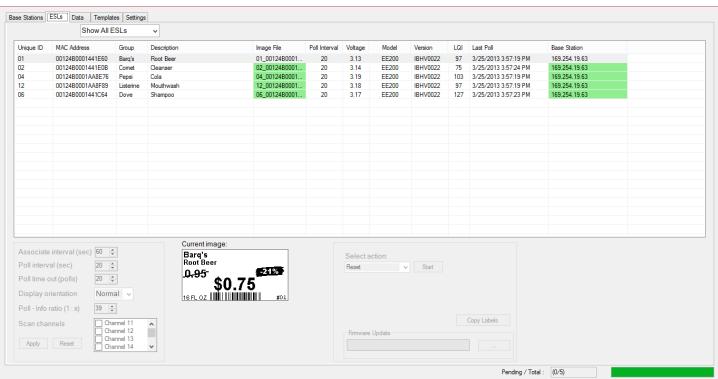
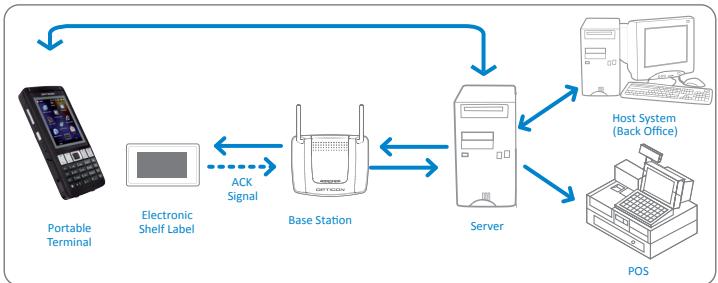
EE201



EE201 2" ESL tag can be used when large fonts are needed to improve visibility in areas where information is displayed on upper level shelving.

Wireless Communications and Software

- Solution includes the hardware and software necessary to manage and communicate bi-directionally with the ESL tags
- Centralized administration of all devices and content
- 100% tag/display flexibility
- Operates on its own independent 2.4 GHz wireless network (IEEE 802.15.4)
- Infrastructure is lightweight, demanding only the installation of PoE (Power Over Ethernet) base stations
- No expensive back-office server infrastructure, straight forward to deploy and manage
- System can be deployed as shelf tags, overhead displays, or as end caps and kiosks
- Lightweight administrative application only requires off-the-shelf Windows-based PC or tablet
- Coverage area of 25,000 square feet per base station
- System administered locally in the store via any PC (tablet, laptop, desktop, server etc.) or host the administration utility and manage it from a mobile device



Base Station

EBS30 ESL Base Station

The EBS30 ESL Base Station communicates bi-directionally with the ESL tags and manages the centralized administration of all devices and content.



- **CPU:** Cortex M3 32-bit MCU
- **Clock Frequency:** 80 MHz
- **Memory:** FlashROM: 256 Kb, Internal RAM: 96 Kb External RAM: 8 MB
- **Ethernet:** 10 Mbit/sec & 100 Mbit/sec, half duplex & full duplex
- **Protocol:** IEEE 802.15.4 based
- **Modulation:** DSSS
- **Band:** 2.4 GHZ, 18 available channels
- **Encryption:** 128-bit AES
- **Transfer Speed:** 128 kbytes/second over the air
- **Max load:** 10,000 ESL's per base station
- **Range:** 30 meters indoor; 100 meters open-field
- **Dimensions (w x h x d):** 145.1 x 110.1 x 32.4 mm (without antennas)
- **Administrative Software:** Windows® based Administration software allows hardware configuration, display tag content management, scheduling, provisioning and polling
- **Mounting:** Optional mounting solutions include adhesive backing, locking bar

Shelf Tags



Opticon's e-paper display technology boasts a high contrast ratio and superior viewing angle. It's bi-stable, so the image will remain on the display even after power is disconnected allowing enterprises to operate the solution with five daily updates and 20 second polling for over 10 years time. We have 2", 2.7", 4.41", and 7.4" e-paper signs before moving into a powered, full color Thin Film Transistor (TFT) models in 10", 32", 55", 75" and 90" sizes.

EE200 ESL Shelf Tag



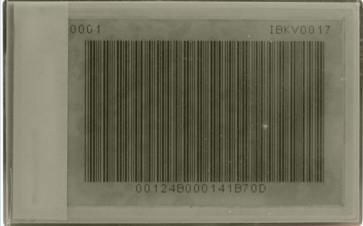
- **Model Number:** EE200
- **Size:** 2"
- **Resolution:** 200 x 96
- **Contrast Ratio:** 10:1
- **DPI:** 111
- **Outline (mm) HxVxT:** 57(H) x 28.80(V) x 1.00(T)

EE201 ESL Shelf Tag



- **Model Number:** EE200
- **Size:** 2"
- **Resolution:** 200 x 96
- **Contrast Ratio:** 10:1
- **DPI:** 111
- **Outline (mm) HxVxT:** 57(H) x 28.80(V) x 1.00(T)

EE270 ESL Shelf Tag



- **Model Number:** EE270
- **Size:** 2.7"
- **Resolution:** 264 x 176
- **Contrast Ratio:** 10:1
- **DPI:** 117
- **Outline (mm) HxVxT:** 70.42(H) x 45.80(V) x 1.00(T)



EE441 ESL Shelf Tag

- **Model Number:** EE441
- **Size:** 4.41"
- **Resolution:** 400 x 300
- **Contrast Ratio:** 10:1
- **DPI:** 113
- **Outline (mm) HxVxT:** 98.50(H) x 80.42(V) x 1.00(T)



EE740 ESL Shelf Tag

- **Model Number:** EE740
- **Size:** 7.4"
- **Resolution:** 480 x 800
- **Contrast Ratio:** 10:1
- **DPI:** 126
- **Outline (mm) HxVxT:** 111.0(H) x 169.0(V) x 1.2(T)

TFT Displays

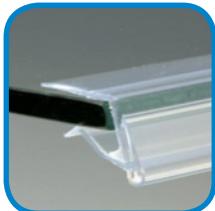
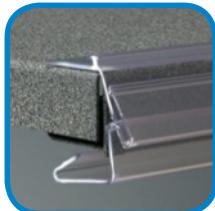


Powered, Full Color Thin Film Transistor (TFT) Displays

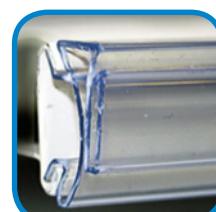
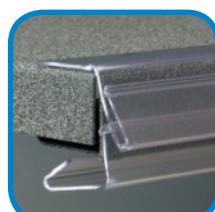
TFT displays are available in 10", 32", 55", 75" and 90" models.

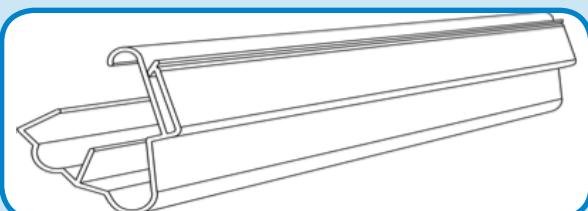
- Full Color Images
- Anti-Glare
- Wireless Image Transfer
- HD Video Streaming
- Low Power Consumption
- IEEE 802.15.4, 2.4 GHz

Mounting Options



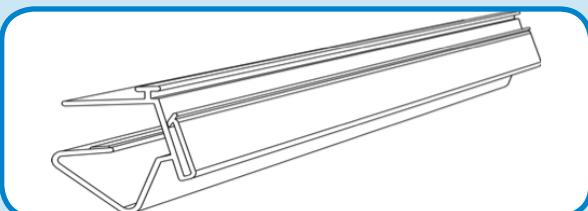
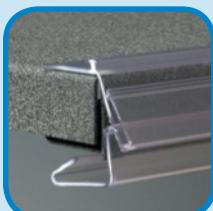
We provide a wide variety of secure, durable and esthetically pleasing ESL shelf mounting options and accessories for in-store shelving. Our broad product offering fits the most popular shelving systems on the market. A majority of our shelf profiles are lightweight allowing for an easier and cost effective migration from traditional paper labels to ESL tags. All mother carriers remain on the shelf and only the tags may need to be changed which allows for efficient and intelligent shelf management.





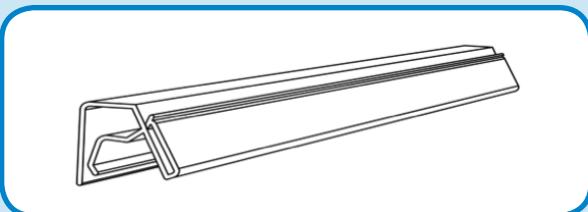
Model:
CLST-REAR

Description:
For Linde, Storebest, Tegometall, Van Keulen, Eden and other shelves



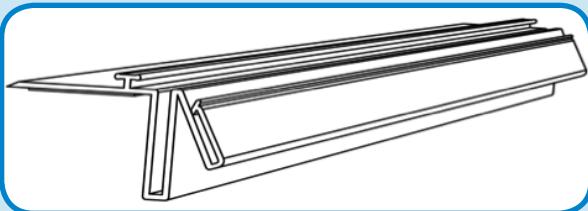
Model:
COANT-REAR

Description:
For regular 16-22mm thick shelves & usage of dividers



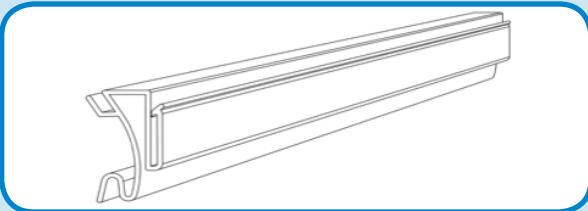
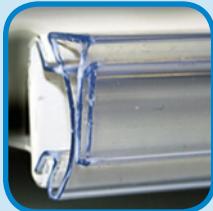
Model:
CKE-REAR

Description:
For wire basket, metal shelving & glass shelving 7-10mm (upwards)



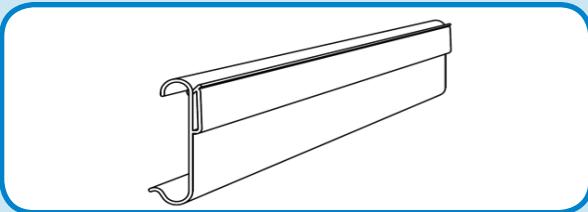
Model:
COPT-REAR

Description:
For U-channel shelves & usage of dividers



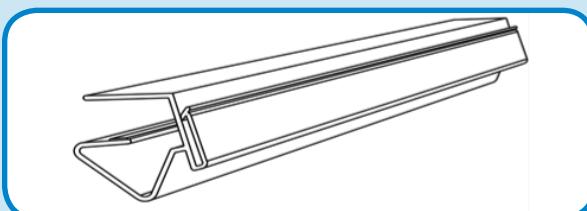
Model:
CHSAC-REAR

Description:
For Hermes Metal shelves



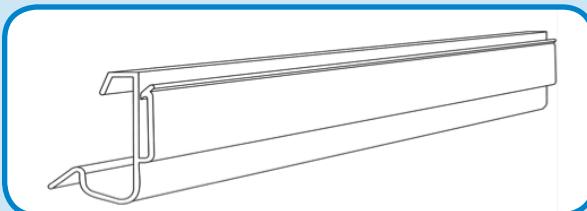
Model:
CWT-REAR

Description:
For Wanzl Wire tech and various 'click' shelves



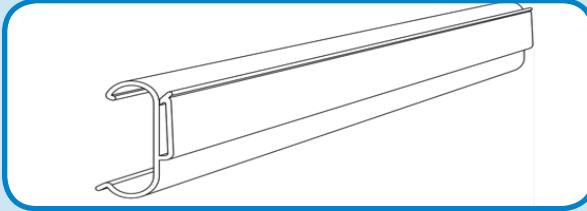
Model:
CANT-REAR

Description:
For regular 16-22mm thick shelves



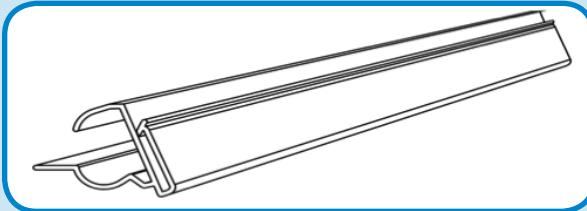
Model:
CCSA-REAR

Description:
For Cefla shelves



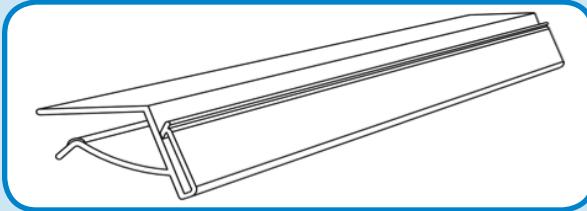
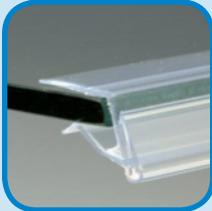
Model:
CEP-REAR

Description:
Aluminium bar, or front of shelf with two horizontal wires
(big).



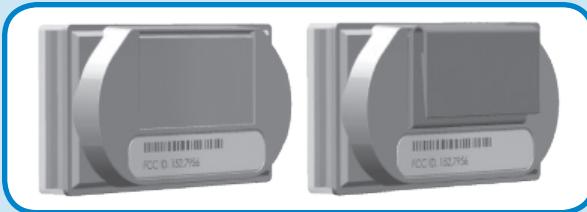
Model:
CFRW-REAR

Description:
For Wanzl Wire shelves, or front of shelf with two horizontal wires
(small).



Model:
CGLS-REAR

Description:
For 7-10mm glass



Model:
ESL Tag Front Rail

Description:
This is not a back track, but a front rail for ESL tags. Required
for all mounting types.

About Opticon, Inc.

Founded in 1976, Opticon is a worldwide family of companies consisting of Opticon, Inc., OPTOELECTRONICS Co., Ltd and Opticon Sensors Europe BV. Opticon has a proud tradition of developing and manufacturing world-class 1D laser and 2D imager barcode scan engines. These engines are used, in turn, to power fixed position scanners, cabled and wireless scanners, data collectors, companion scanners and mobile devices.

Opticon maintains its industry leadership position by continuing to develop innovative technology. Most recently, Opticon has been a leader in 2D auto-focus, liquid lens technology and in e-paper display technology, which is used in electronic shelf labeling (ESL) solutions. Opticon designs and manufactures its products in ISO 9001 certified facilities and observes international standards of quality, safety and environmental protection.

Opticon supports a broad network of partners – telecommunication carriers, system integrators, distributors, independent software developers and resellers – who provide innovative solutions, diverse service offerings and focused industry expertise. Opticon views the success of its partners as one of its core values.

Get Started!

Order your ESL Demonstration Kit today and discover for yourself what the power of Electronic Shelf Labeling (ESL) can do for you. Your kit includes:

- (5) Opticon 2" shelf tags
- (1) Opticon ESL Base Station
- (1) Toshiba laptop computer with Opticon ESL Demonstration Software and Manuals
- (1) Ethernet cable

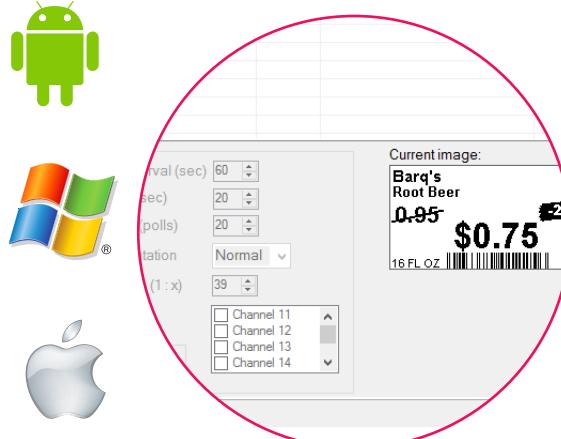
Call or e-mail to place your order:

Opticon Sales

Phone: (800) 636-0090 or (425) 651-2120

E-mail: sales@opticonusa.com

<http://www.opticonusa.com/products/fixed-position-solutions/esl.html>



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