# SE-290
## 2.9 inch E-paper Display

The SE-290 is a high-resolution, fully graphical, e-paper display that supports black, white, red (SE-290R) and yellow (SE-290RY) colors. The label has a high-efficiency RGB LED to provide enhanced visual attention and a location indicator.



## Highlights

- Enables on-demand, real-time pricing, promotions and product information
- Improves efficiency by reducing waste, minimizing errors and decreasing labor costs
- E-Paper display technology boasts a high-contrast ratio and superior viewing angle
- Features 4 colors including complementary red and yellow
- High-efficiency RGB LED
- Optional NFC for application versatility
- Adjustable LED brightness and duty cycle
- 100% display content flexibility and customizable template design

- Centralized system administration with the Opticon ESL Web Server Software
- Bistable display technology allows image to be retained with loss of power
- High-contrast display supports scannable 1D and 2D barcodes
- Extensive accessories catalog offering secure, durable and attractive mounting solutions
- Five-year battery lifespan (5 updates/day)
- Extremely low power consumption
- 2.4 Ghz, 802.15.4 based protocol
- 296 x 128 pixels

# SE-290
## Product Specifications

## Operation

**CPU:** 64 MHz Arm® Cortex™-M4

**Clock frequency:** 32 MHz

## Memory

**Internal ROM:** 192 KB

**Internal RAM:** 24 KB

**External ROM:** 1 MB

## Operating indicators

**LED:** 1, RGB, adjustable brightness and duty level

## Communication

**Range:** typical 25 meter indoor; 100 meter open-field

**Radio frequency:** 2.4 GHz (2405 - 2480 MHz)

**Radio transmission speed:** up to 250 kbps

**Protocol:** IEEE 802.15.4 based

**Capacity:** 1,500 ESL displays per base station

## Power

**Battery:** 2x CR2450 lithium primary batteries

**Lifespan:** Approximately 5 years at room temperature with 5 updates per day, no LED usage

## Display

**Size:** 2.9'', 296 x 128 pixels (WxH), black, white, red (SE-290R), or black, white, red, yellow (SE-290RY)

**Active area:** 66.9 x 29.1 mm (WxH)

**Pixel Pitch:** 112 dpi

## Durability

**Temperature in operation:** 0 to 40 °C / 32 to 104 °F

**Temperature in storage:** -20 to 60 °C / -4 to 140 °F

**Humidity in operation:** 40 - 60% (non-condensing)

**Humidity in storage:** 40 - 60% (non-condensing)

## Physical

**Dimensions (WxHxD):** 94 x 43.2 x 11.8 mm / 3.7 x 1.7 x 0.46 in

**Weight:** Ca. 38.0 g / 1.34 oz

## Regulatory & Safety

**Product compliance:** CE, FCC, RoHS, REACH

## Models

**SE-290R:** black, white and red display

**SE-290RY:** black, white, red and yellow display

**NFC:** optional

## Accessories

Refer to the SE-Range Accessories brochure online at: https://opticon.com/product-category/display-solutions/mounting/

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