

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 LED in 7 RGB colors
- 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: 50-80 meters

Zigbee radio frequency: 2.4 GHz (2405 - 2480 MHz)

BLE radio frequency: 2402 - 2480 MHz

Max transmit power: Zigbee 2.92 dBm, BLE 2.04 dBm

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

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC warning:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Safety Warnings and Potential Hazards Related to Battery Handling:

- Replacement of a battery with an incorrect type that can defeat a safeguard (for example in the case of some lithium battery types).
- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion.
- Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas.
- A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

* Recommended installation height: less than 2 meters.