

## EE-290

### 2.9 inch E-paper Display

The EE-290 is a high resolution fully graphical, e-paper based, display. With a size of 296 x 128 pixels it makes it easy to show pricing, promotions and product information.



## Highlights

- Enables on-demand, real-time pricing, promotions and product information
- Reduces waste and labor costs and minimizes errors
- E-Paper display technology boasts a high contrast ratio and superior viewing angle
- 100% display content flexibility and centralized administration of all devices and content via the Opticon ESL Server Software
- Bi-Stable display, so the image will remain on the display even after power is disconnected
- High contrast display allows scanning of barcodes off the display using a standard barcode scanner
- Display can be remotely updated via bidirectional communication using the Opticon Base Station
- A wide variety of secure, durable and esthetically pleasing display shelf mounting options and accessories for in-store shelving are available
- Extremely low power consumption
- 2.4 Ghz, 802.15.4 based protocol
- 296 x 128 pixels
- IP54

# EE-290

## Product Specifications

### Operation

CPU: CC2530-F128, 8051 core 8-bit MCU

Clock frequency: 32 MHz

### Memory

Internal ROM: 128 kB

Internal RAM: 8 KB

### Operating indicators

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

### Communication

Radio frequency: 2.4 GHz (2405 - 2480 MHz)

Radio transmission speed: up to 250 kbps

Protocol: IEEE 802.15.4 based

No. of EE-290 ESL's per base station: 1,500

### Power

Battery: 2x CR2450

Operating Voltage: 2.0 - 3.3V

Nominal Voltage: 3.0V

Usable time: 7 years at room temperature (update frequency: 4 times per day with 20 seconds poll time), 5 years for red ESL

### Display

Size: 2.9", 296 x 128 pixels (WxH), black, white and red

Active area: 67 x 29 mm (WxH)

Contrast ratio: 8:1

Pixel Pitch: 112 dpi

### Durability

Temperature in operation: 5 to 40 °C / 41 to 104 °F

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

Humidity in operation: 20 - 60% (non-condensing)

Humidity in storage: 20 - 60% (non-condensing)

Protection rate: IP54

### Physical

Dimensions (WxHxD): 88.0 x 45.0 x 15.2 mm / 3.46 x 1.77 x 0.6 in

Weight: Ca. 48 g / 1.6 oz (incl. battery)

### Regulatory & Safety

Product compliance: FCC, roHs, En60950-1, IEC60950-1, En 55022, En 55024, CE, REACH