

## EE-213R

2.1 inch E-paper

Opticon's EE-range are high resolution fully graphical, e-paper based displays that comes in black, white and red. Its slim design comes in 1.5, 2.1 and 2.9 inch labels.



## 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
- 212 x 104 pixels
- Complementary red color

# EE-213R

## Product Specifications

### Operation

CPU: 8051 8-bit MCU

Clock frequency: 32 MHz

### Memory

Internal ROM: 96 KB

Internal RAM: 6 KB

### 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

No. of EE-293R ESL's per base station: 2,500

### Power

Battery: 2x CR2450 Lithium primary batteries

Operating voltage 1.9-3.3V

Nominal voltage: 3.0V

Usable time: Approximately 5 years at room temperature, with 2 updates per day

### Display

Size: 2.1", 212 x 104 pixels (WxH), black, white and red

Active area: 48.55 x 23.71 mm (WxH)

Contrast ratio: 8:1

Pixel Pitch: 111 dpi

### Durability

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

Temperature in storage: -20 to 50 °C / -4 to 122 °F

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

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

### Physical

Dimensions (WxHxD): 69.9 x 34.7 x 11.5 mm /  
2.75 x 1.37 x 0.45 in

Weight: Ca. 45.0 g / 1.59 oz

### Regulatory & Safety

Product compliance: EN 60950-1:2006 +A11:2009+  
A1:2010+A12:2011+A2:2013, IEC 60950-1:2005 (2nd  
Edition)+Am 1:2009+Am 2:2013, EN55022: 2010,  
EN55024: 2010, FCC, WEEE 2012/19/EU, RoHS  
2011/65 EC