

# EE-420R

## 4.2 Inch E-Paper Display



### Highlights

- 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
- Bi-Stable display, so the image will remain on the display even after power is disconnected
- Extremely long battery life: 5 years at room temperature (two internal AAA batteries, update frequency: 2 times per day, poll time 20 seconds)
- High contrast display allows scanning of bar codes off the display using a standard barcode laser scanner
- Display can be remotely updated via bidirectional communication using a 2.4 GHz wireless network (IEEE 802.15.4)
- Key metrics: 4.2 inch, 400 x 300 pixels (WxH), black, white and red resolution, 8:1 contrast ratio and 120 DPI
- Dimensions: 3.98" x 3.66" x 0.63" (WxHxD) and weight: 3.56 ounces (including batteries)
- A wide variety of secure, durable and esthetically pleasing display shelf mounting options and accessories for in-store shelving are available

# EE-420R

## Product Specifications

### OPERATION

**CPU:** 8051 core 8-bit MCU  
**CLOCK FREQUENCY:** 32 MHz

### MEMORY

**INTERNAL ROM:** 256 kB  
**INTERNAL RAM:** 8 KB

### OPERATING INDICATORS

**RANGE:** Typical 25 meters indoor; 100 meters open-field

### COMMUNICATION

**RADIO FREQUENCY:** 2.4 GHz (2405 - 2480 MHz)  
**RADIO TRANSMISSION SPEED:** 1p to 250 kbps  
**PROTOCOL:** IEEE 802.15.4 based  
**NUMBER OF EE-420R ESL'S PER BASE STATION:** 2,000  
**UPDATES PER HOUR:** Up to 1,800 labels

### POWER

**BATTERY:** 2x Alkaline AAA  
**OPERATING VOLTAGE:** 3.0V  
**USABLE TIME:** 5 years at room temperature (update frequency: 2 times per day with 20 seconds poll time)

### DISPLAY

**SIZE:** 4.2", 400 x 300 pixels (WxH), black, white, red  
**ACTIVE AREA:** 84.8 x 63.6 mm (WxH)  
**CONTRAST RATIO:** 8:1  
**PIXEL PITCH:** 120 dpi

### DURABILITY

**TEMPERATURE:**  
Operation: 41 to 104 °F (5 to 40 °C)  
Storage: -4 to 140 °F (-20 to 60 °C)  
**HUMIDITY:**  
Operation: 20 - 60% (non-condensing)  
Storage: 20 - 60% (non-condensing)

### PHYSICAL

**DIMENSIONS (WXHxD):** 3.98" x 3.66" x 0.63"  
(101 x 93 x 16 mm)  
**WEIGHT:** 3.56 ounces (101 grams)

### REGULATORY AND SAFETY

**PRODUCT COMPLIANCE:** CE, FCC, RoHS, EN60950-1, IEC60950-1, EN55022, EN55024

### ACCESSORIES

Various mounting options are available, refer to Accessories for Opticon EE Range ESL brochure for details

