

# EE-290

## 2.9 inch E-paper Display

### HIGHLIGHTS

Extremely low power consumption

802.15.4 based protocol

2.4 GHz

IP 54



# EE-290

## Basic 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

### DISPLAY

**SIZE:** 2.9", 296 x 128 dots (WxH), black, white and red **ACTIVE AREA:** 67 x 29 mm (WxH) **CONTRAST RATIO:** 8:1 **PIXEL PITCH:** 112 dpi

### COMMUNICATION

**RADIO FREQUENCY:** 2.4GHz (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:** 1500

### POWER

**BATTERY:** 2x CR2450 **OPERATING VOLTAGE:** 2.0 - 3.3 V **NOMINAL VOLTAGE:** 3.0 V **USABLE TIME:** 7 years at room temperature (update frequency: 4 times per day, poll time 20 seconds), 5 years for red ESL

### 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:** IP 54

### PHYSICAL

**DIMENSIONS (W X H X D):** 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, IEC 60950-1, EN 55022, EN 55024, CE, REACH

