

## DESCRIPTION

### ❖ CHARACTERS

The P1.86 indoor full-color LED display is a high-performance module developed by our company specifically for indoor use. The PCB adopts international FR-4 double-layer board standards, featuring a dual-layer circuit design with a board thickness of 1.2mm. The surface treatment process is OSP, and the PCB is shaped using CNC technology. The module includes 48 driver ICs and 4 row control ICs, with a 75 interface. The LED lights use 1921 indoor lamp beads, which are SMD surface-mounted LEDs with dimensions of 2.10\*2.10\*1.95mm. The encapsulation is a frosted matte finish, and the light emitted is full-color with a half-power viewing angle of 120 degrees.

### ❖ APPLICATION AREA

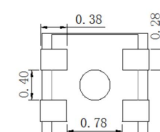
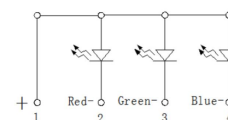
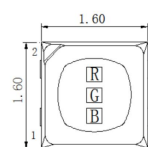
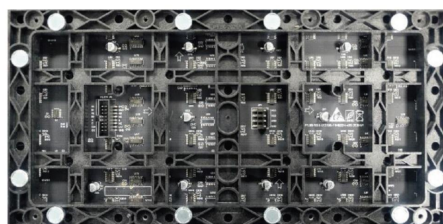
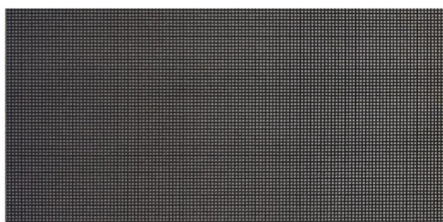
- ❖ Video advertising display
- ❖ Mall, large advertising display
- ❖ High-grade LED advertising, display card

### SUMMARY

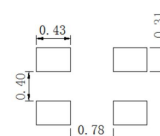
|                          |         |
|--------------------------|---------|
| ❖ Operating voltage      | 5V DC   |
| ❖ Maximum current        | 5.52A   |
| ❖ Maximum power          | 27.6W   |
| ❖ Gray level             | 14bit   |
| ❖ Frame change frequency | 50&60Hz |
| ❖ Refresh frequency      | 1920Hz  |

### CERTIFICATION

The certification types will be increased as needed. You can contact our company's salesperson to learn more.



For reflow soldering



| ITEM                     |                                               | MODEL                                                                  |
|--------------------------|-----------------------------------------------|------------------------------------------------------------------------|
|                          |                                               | EL-IN-ET-P1.86                                                         |
| Physical parameter       | LED package                                   | SMD1515-1R1G1B                                                         |
|                          | Horizontal view/vertical view                 | ≤110/110                                                               |
|                          | Flatness                                      | ≥97%                                                                   |
|                          | Bottom shell screw aperture                   | M4                                                                     |
|                          | Input signal interface definition             | HUB75                                                                  |
|                          | Power socket specification                    | 4P/90°                                                                 |
|                          | Module weight<br>KG/PCS                       | 0.47                                                                   |
|                          | Class of protection                           | IP3X                                                                   |
| Optical parameter        | Luminous intensity<br>Lm                      | 801                                                                    |
|                          | Gray level<br>bit                             | ≥13                                                                    |
|                          | Temperature<br>K                              | 10450                                                                  |
|                          | Contrast                                      | ≤4000:1                                                                |
|                          | Brightness control                            | Manual/automatic/program control                                       |
| Electrical parameter     | Operating voltage<br>(DC) V                   | 5V                                                                     |
|                          | Maximum current<br>A                          | 5.52                                                                   |
|                          | Peak power<br>W/PCS                           | 27.6                                                                   |
|                          | Average power<br>W/PCS                        | 9.2                                                                    |
| Performance<br>parameter | Refresh frequency<br>HZ                       | ≥3840Hz                                                                |
|                          | Frame change frequency<br>Frame               | 60                                                                     |
|                          | Driving mode                                  | Constant current drive                                                 |
|                          | Scanning mode                                 | 1/43                                                                   |
|                          | Color correction                              | It is equipped with point by point correction of brightness and chroma |
|                          | Whole screen out of control point             | ≤0.003%, 出厂时为 0                                                        |
|                          | Regional runaway point                        | ≤0.009%                                                                |
|                          | Screen temperature rise (using running state) | ≤5°                                                                    |
| Adaptation scenario      | Operating ambient temperature                 | -10℃～60℃                                                               |
|                          | Operating environment humidity                | 35%～75%RH, Non-condensing                                              |
|                          | Usage scenario                                | Indoor                                                                 |
| Adaptive chassis         | Product chassis dimensions (W x H)            | 640*480mm0                                                             |
|                          | Chassis resolution (W x H)                    | 344*258                                                                |
|                          | Input signal interface                        | RJ45                                                                   |
|                          | Power signal interface                        | 3* U-shaped terminals                                                  |

| 描述                                 |                                   |      |
|------------------------------------|-----------------------------------|------|
|                                    | Class of protection               | IP5X |
| White balance debugging parameters | R Brightness<br>CD/M <sup>2</sup> | 180  |
|                                    | R current A                       | 3.58 |
|                                    | R-resistance<br>KΩ                | 1.1  |
|                                    | G Brightness<br>CD/M <sup>2</sup> | 540  |
|                                    | G Electric current<br>A           | 2.08 |
|                                    | G Resistance value<br>KΩ          | 2.4  |
|                                    | B Luminance<br>CD/M <sup>2</sup>  | 115  |
|                                    | B Electric current<br>A           | 1.37 |
|                                    | B Resistance value<br>KΩ          | 5.1  |
|                                    | W Luminance<br>CD/M <sup>2</sup>  | 801  |
|                                    | W Electric current<br>A           | 5.52 |

## 特征

P1.86, 室内全彩屏, 是我司专门为室内研发的一款高性能模组, PCB 采用国际 FR-2 两层板, 双层电路板设计, 板材厚度1.2mm, 表面处理工艺为 OSP, PCB 成型为CNC工艺, 驱动IC为48颗, 行管IC为4颗, 75接口LED 灯采用1921室内灯珠, SMD贴片发光二极管 2.10\*2.10\*1.95mm, 胶体颜色为: 磨砂雾状, 发光颜色: 全彩, 半功率角度: 120度

## 应用领域

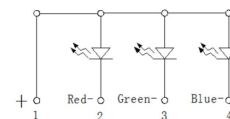
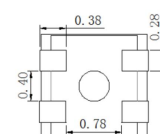
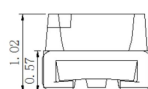
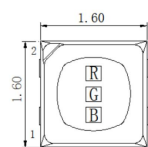
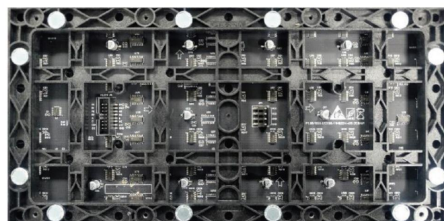
- ❖ 视频广告展示
- ❖ 商场中、中大型广告展示
- ❖ 高档LED广告、展示牌

## 概要

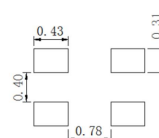
- ❖ 工作电压 5V直流
- ❖ 最大电流 5.52A
- ❖ 最大功率 27.6W
- ❖ 灰度等级 14bit
- ❖ 换帧频率 50&60Hz
- ❖ 刷新频率 1920Hz

## 认证

认证种类将会增加, 请联系本公司业务。



For reflow soldering



| 说明   |                | 型号             |
|------|----------------|----------------|
|      |                | EL-IN-ET-P1.86 |
| 物理参数 | LED 封装         | SMD1515-1R1G1B |
|      | 水平视角/垂直视角      | ≤110/110       |
|      | 平整度            | ≥97%           |
|      | 底壳螺丝孔径         | M4             |
|      | 输入信号接口定义       | HUB75          |
|      | 电源座规格          | 4P/90°         |
|      | 模组重量<br>KG/PCS | 0.47           |
|      | 防护等级           | IP3X           |
| 光学参数 | 发光强度<br>Lm     | 801            |
|      | 灰度<br>bit      | ≥13            |
|      | 色温<br>K        | 10450          |
|      | 对比度            | ≤4000:1        |
|      | 亮度调节           | 手动/自动/程控       |
| 电性参数 | 工作电压<br>(DC) V | 5V             |
|      | 最大电流<br>A      | 5.52           |
|      | 峰值功率<br>W/PCS  | 27.6           |
|      | 平均功率<br>W/PCS  | 9.2            |
|      | 刷新频率<br>HZ     | ≥3840Hz        |
| 性能参数 | 换帧频率<br>帧      | 60             |
|      | 驱动方式           | 恒流驱动           |
|      | 扫描方式           | 1/43           |
|      | 色彩校正           | 配备亮度与色度逐点校正    |
|      | 整屏失控点          | ≤0.003%，出厂时为 0 |
|      | 区域失控点          | ≤0.009%        |
|      | 屏幕温升（使用运行状态）   | ≤5度            |
|      | 运行环境温度         | -10℃~60℃       |
| 适配场景 | 运行环境湿度         | 35%~75%RH，无凝结  |
|      | 使用场景           | 室内             |
|      | 产品机箱尺寸(宽×高)    | 640*480mm      |

|         |                           |         |
|---------|---------------------------|---------|
| 适配机箱    | 机箱分辨率(宽×高)                | 344*258 |
|         | 输入信号接口                    | RJ45    |
|         | 电源信号接口                    | 3*U 形端子 |
|         | 防护等级                      | IP5X    |
| 白平衡调试参数 | R 亮度<br>CD/M <sup>2</sup> | 180     |
|         | R 电流 A                    | 3.58    |
|         | R 阻值<br>K Ω               | 1.1     |
|         | G 亮度<br>CD/M <sup>2</sup> | 540     |
|         | G 电流<br>A                 | 2.08    |
|         | G 阻值<br>K Ω               | 2.4     |
|         | B 亮度<br>CD/M <sup>2</sup> | 115     |
|         | B 电流<br>A                 | 1.37    |
|         | B 阻值<br>K Ω               | 5.1     |
|         | W 亮度<br>CD/M <sup>2</sup> | 801     |
|         | W 电流<br>A                 | 5.52    |