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# LED MODULE SPECIFICATION

Model: ID-P1.86-43S-320X160-1515

Version 1.0.1

Designed by:	RB
Reviewed by:	LC
Authorized by:	

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## Precautions

### Warnings

- Do not apply rough force such as bending or twisting to the modules during assembling.
- Do not mix-use this product with other model LED module.
- Do not mix-use modules of different batch numbers in one screen, which may cause color gamut and brightness difference.
- Do not reverse the positive and negative poles of module power connector, otherwise the module will be breakdown.
- Do not plug or unplug modules when the power is on.
- Do not modify the modules or change the circuit connection without consulting with LEDIFY.

### Cautions

- Please make sure the power supply is always off when detaching the connectors, replacing components or organizing data/power cables.
- LED lamps are very fragile against external impact. Please pay special attention to the modules surface when handling the modules.
- The modules shall be operating under the following conditions (operating temperature:  $-20\text{ }^{\circ}\text{C}$  to  $50\text{ }^{\circ}\text{C}$  /  $-4\text{ }^{\circ}\text{F}$  to  $122\text{ }^{\circ}\text{F}$ ; Operating humidity: 10 – 65% RH). Inappropriate operating condition may deteriorate the performance and reduce the life span of LED modules.
- Please storage the modules under LEDIFY recommended condition (LEDIFY recommended storage condition: Temperature:  $25^{\circ}\text{C} \pm 10^{\circ}\text{C}$ ; RH =  $30\% \pm 10\%$ ).
- ESD (Electro Static Discharge) will cause the chips or electronic components damage. Please be sure to ground yourself, wear an earth band and avoid cloths made by chemical fiber when touching the modules by hands in order to protect the products from static electricity.
- The operating voltage input of the modules is 4.5-5 V. over voltage or reversed voltage are strictly prohibited.
- When using power supply not approved by LEDIFY. Please rigorously assess the datasheet of the power supply so as not to cause damage to the circuit. LEDIFY will not take responsibility for any damage caused by the above situation.
- The color of the LED modules may change after a long time exposed to UV rays. It's a normal physic phenomenon.
- Please use metal-free soft brush for cleaning the module front surface.
- Please pay attention to the metal screws when assembling or disassembling the modules to the cabinet. Metal screws may cause serious short circuit or fire hazzard if dropping them into the cabinet. Please be sure all the screws are not left in the cabinet and operate with all the power supply off.

## Model: ID-P1.86-43S -320X160-1515

### Features

172x86(R/G/B) dots LED matrix

1/43 scan with ghost effect elimination function

Rating IP42

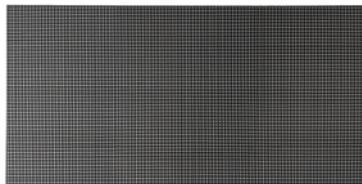
1.6mm 2 layer PCB material, good heat dissipation

Top level PCB flame retardant, rating 94V0

SMD1515high quality lamps, high color contrast and long lifetime

### 3 Product description

ID-P1.86-43S-320X160-1515 is designed by LEDIFY to light up and display pictures or play videos when it is turned on. The best application of ID-P1.86-43s is for indoor activities such as exhibition halls, conference rooms, or other occasions.



Front view



Rear view

### 3 Product technical parameter

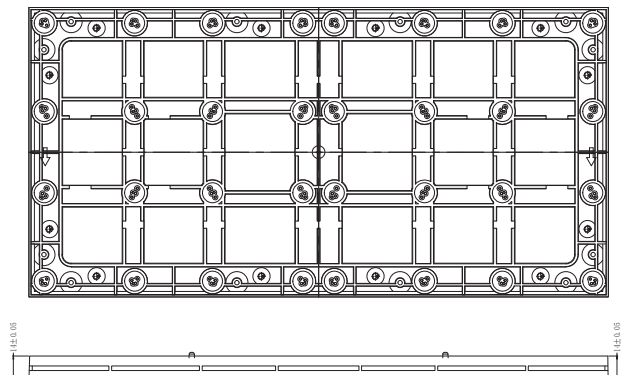
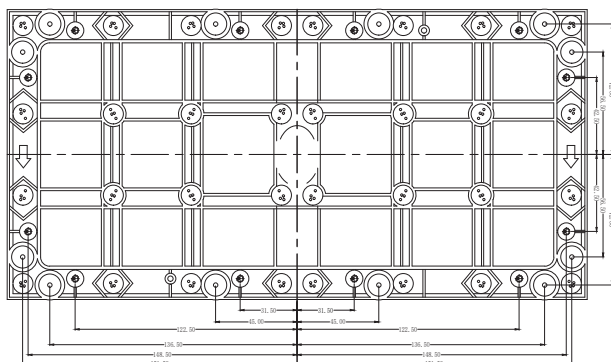
#### 3.1 Lamp technical parameter

Item	Unit	R	G	B
Current	mA	15	8	5
Wavelength	nm	620~625	530~540	465~470
Brightness	mcd	19~24	31~41	5~6.5
Voltage	V	1.8~2.3	2.4~3.0	2.5~3.1
Color Temp	K	8000~12000		
Brightness	CD/m <sup>2</sup>	≥600		

### 3.2 Module technical parameter

Technical Parameter	
Dimension	320mmx160mm
Pixel Pitch	1.86 mm
Resolution	172×86
Weight	430-460 g
LED Lamp	SMD1515
Max Brightness	≥600cd/sqm
Refresh Rate	≥3840 Hz
Scan	1/43
Gray Scale	14 bit
IP Level	IP42
Lifespan	100000 h
Operating Voltage	4.5-5V
Max Power	15-20 W
Max Current	3.5-4 A
Power Supply	6 modules per 200W power supply
Viewing Distance	3-10 m
Viewing Angle	Horizontal >170 Vertical>170
Operating Temp	-20 °C to 50°C / -4 °F to 122 °F
Operating Humidity	10-60% RH
Certifications	CE, FCC, RoHS
Warranty	1 year

### 4 Position hole diagram



## 5 Installation guide

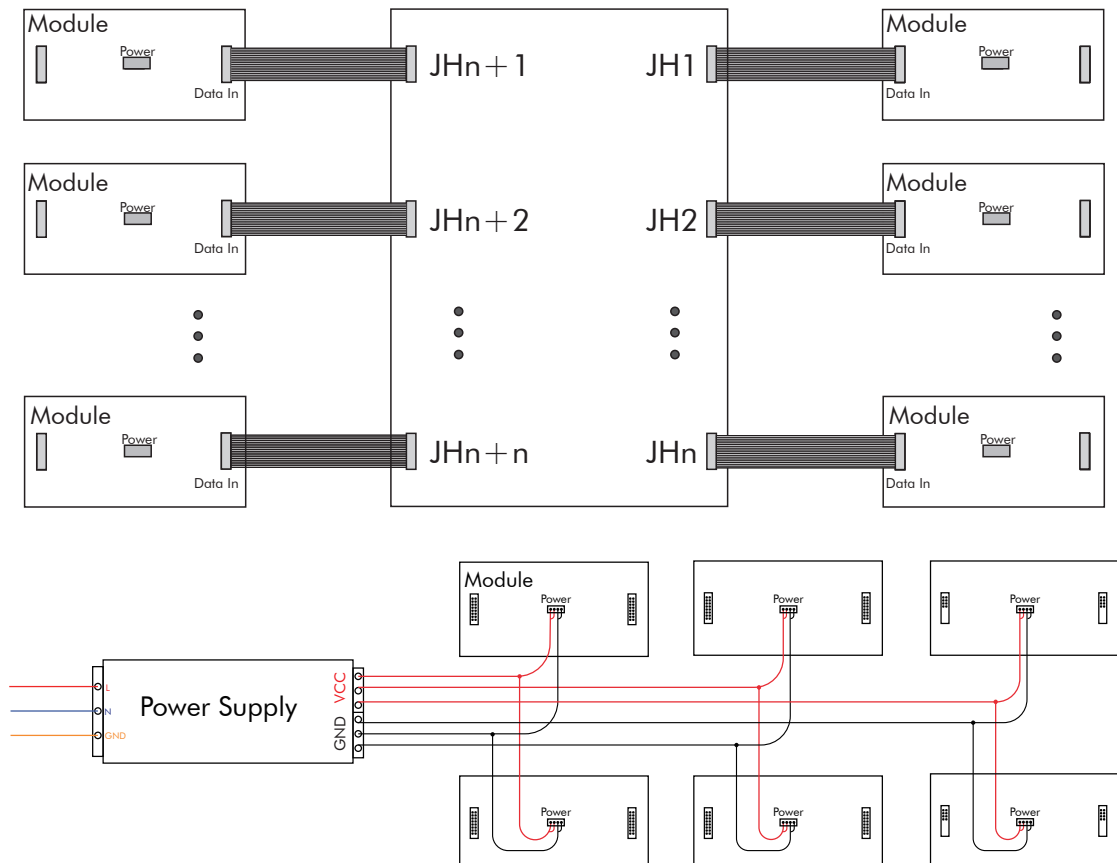
### 5.1 Data interface description

Data Interface description					
Pin	Name	Pin function	Pin	Name	Pin function
1	R1	Data of red	2	G1	Data of green
3	B1	Data of blue	4	GND	Ground
5	R2	Data of red	6	G2	Data of green
7	B2	Data of blue	8	E	Line scan signal
9	A	Line scan signal	10	B	Line scan signal
11	C	Line scan signal	12	D	Line scan signal
13	CLK	Clock signal	14	LAT	Data latch
15	OE	Output enable	16	GND	Ground

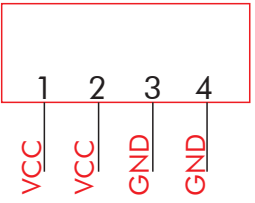
J1					
R1	1	1	2	2	G1
B1	3	3	4	4	GND
R2	5	5	6	6	G2
B2	7	7	8	8	E
A	9	9	10	10	B
C	11	11	12	12	D
CLK	13	13	14	14	LAT
OE	15	15	16	16	GND

### 5.2 Module power/data connection diagram



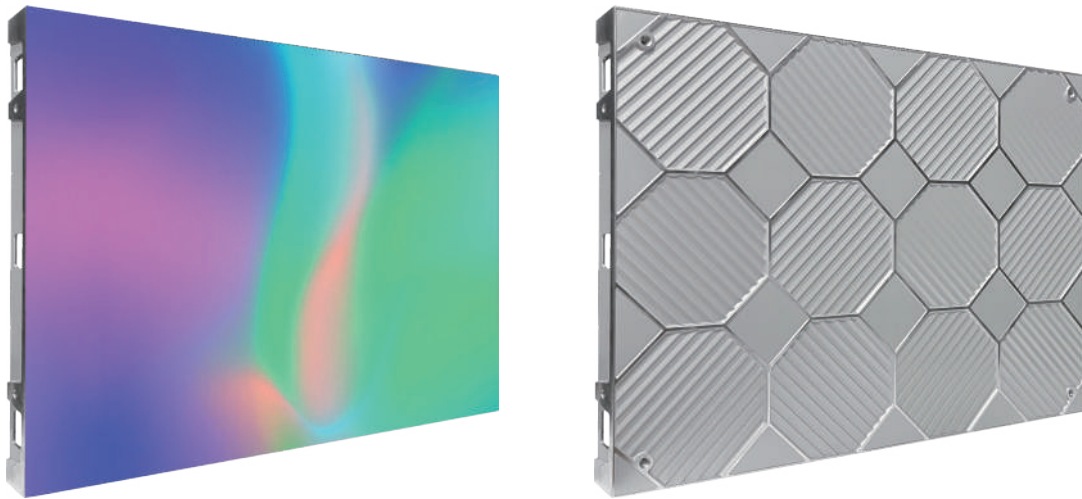
### 5.3 Power interface description

Power interface description	
Pin	Name
1	VCC
2	VCC
3	GND
4	GND



## 6 Cabinet recommendation

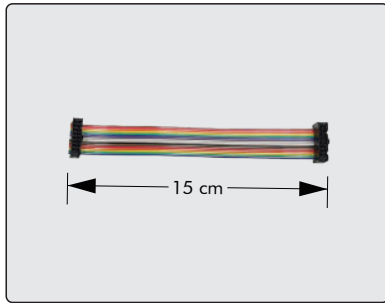
### 6.1 Cabinet image



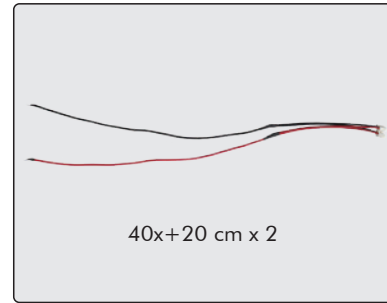
### 6.2 Cabinet parameter

Cabinet parameter			
Cabinet Size	640mmx480mm	Refresh Rate	≥3840Hz
Thickness	62 mm	Resolution	344×258
IP Level	IP42	Max Power	<380 W/sqm
Brightness	≥600 cd/sqm	Avg Power	130W/sqm
Gray Scale	14 bit	Screw / Magnet	M4
Weight/sqm	8.15 kg	Interface	HUB75

## 7 Accessories and package



Data cable



Power cable

### Package

The product are packed in specially designed carton box. The carton size (565 x 365 x 400mm/40PCS) are compatible with the module and the advanced structure offers perfect protection. The size of the carton matches the container also, that enhances the space utilization and reduces the cost of delivery in the meantime.

