BOE

BTQ020S
Product specification

Rev. 0

BOE MLED Technology Co., Ltd.

1. Product introduction

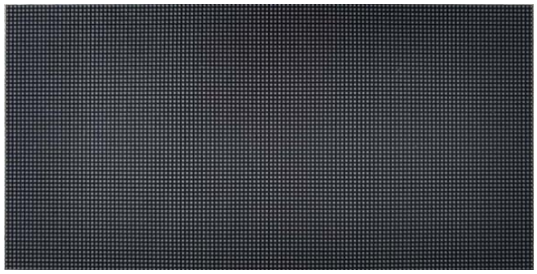
1.1 Scope of Application

This product specification is applicable to P2.0 indoor full-color modules

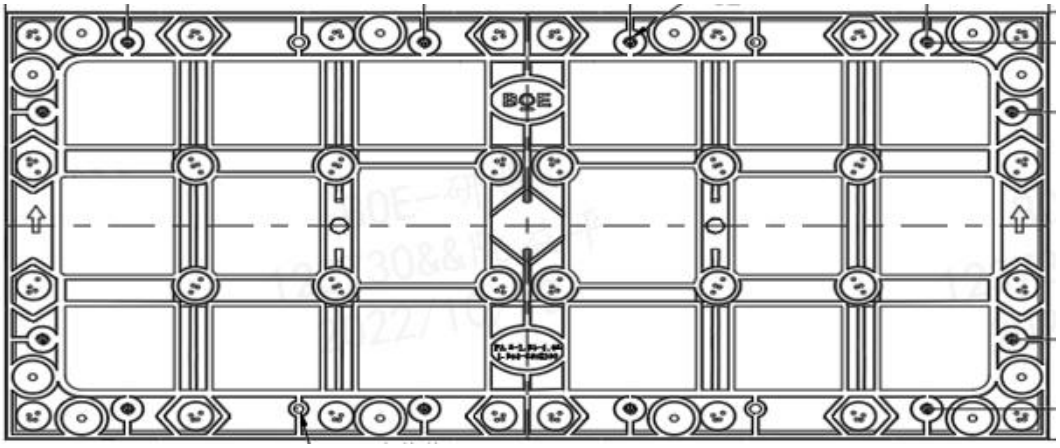
1.2 Product description

- Superior lamps, high brightness utilization rate, extended lamp life and high-quality plastic parts
- High contrast ration for superior display effect
- Light weight, easy installation and disassemble
- Single-point, single-lamp maintenance low-cost
- Constant current LED driver, uniform light, low power consumption

1.3 Product picture

View	Illustration
Front view	
Back view	
Side view	

1.4 LOGO location

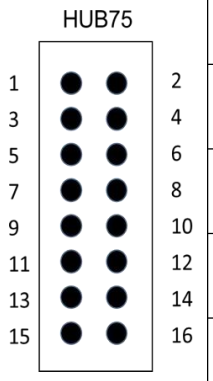


2. Product specification

Category	Parameters	Specification
Module	Pitch(mm)	2.0
	LED model	SMD1515
	LED Type	Copper wire
	Module resolution	160*80
	Module size ± tolerance(mm × mm × mm)	319.9 ± 0.1*159.9 ± 0.1*14.6 ± 0.2
	Module weight ± tolerance(g)	0.42 ± 0.05
	Module flatness (mm)	≤0.2
	Module density (dot/m^2)	250000
Optical Parameters	White balance brightness (cd/m^2)	⩾450
	Color temperature	3000～15000k adjustable
	Horizontal viewing angle	⩾150°
	Vertical viewing angle	⩾130°
	View distance (m)(=PITCH*1)	⩾2.0
Electrical Parameters	Maximum power consumption per module (W)	⩽20
	Average active power consumption (W/m^2)	⩽130
	Maximum active power consumption (W/m^2)	⩽390
	Operating voltage (V)	5
	Signal input interface type	HUB75
Processing Performance	Scanning mode	40S
	Frame change frequency (Hz)	50/60
	Refresh frequency (Hz)	3840
	Driving mode	Constant drive
	Gray scale (Bit)	≥12

Category	Parameters	Specification
Operating Parameters	Continuous operation time	⩾7×24hrs，Support uninterrupted display
	Average trouble-free working time	⩾5000 hours
	Discrete runaway point	⩽0.0001，Preset at 0
	Continuous runaway point	0
	Blind spot rate	⩽0.0001，Preset at 0
Utilization Parameters	Typical life value (hrs)	30000H
	Operating temperature (℃)	-10℃-40℃
	Storage temperature (℃)	-20℃-50℃
	Operating humidity (RH)	10%-60%RH(No condensation)
	Storage humidity (RH)	10%-65%RH(No condensation)
Protection Grade	Protection grade	IP30

3. Definition of signal interface



Pin	Signal	Function	Pin	Signal	Function
1	R1	Red data signal	2	G1	Green data signal
3	B1	Blue data signal	4	GND	GND of power supply
5	R2	Red data signal	6	G2	Green data signal
7	B2	Blue data signal	8	E	Line control signal
9	A	Line control signal	10	B	Line control signal
11	C	Line control signal	12	D	Line control signal
13	CLK	Clock signal	14	LAT	Latch signal
15	OE	Enable signal	16	GND	GND of power supply

4. Mounting holes

4.1 Module mounting hole location（Unit：mm）