

Product Specification

QIANGLI INDOOR MKV Q3.98



Product: Indoor Q3.98 1/20 Scan Module – High Refresh Rate

Item No.: Q3.98-20S-2020

Version: 2.7

1. Product Specification

1.1. The indoor full color display has a clearer and more detailed display, and the resolution can reach above 1080P; it can achieve high refresh rate, high grayscale and higher lamp utilization. And it has the functions of no afterimage, anti-caterpillar, low power consumption, low surge, etc.

1.2. The indoor full color display is mainly composed of a red LED chip, a green LED chip and a blue LED chip packaged into a matrix of pixels, and then fixed to a plastic package.

1.3. The indoor full color display contains driving IC and input buffer chip, which can display video, image and text information when connected to the LED display control system.

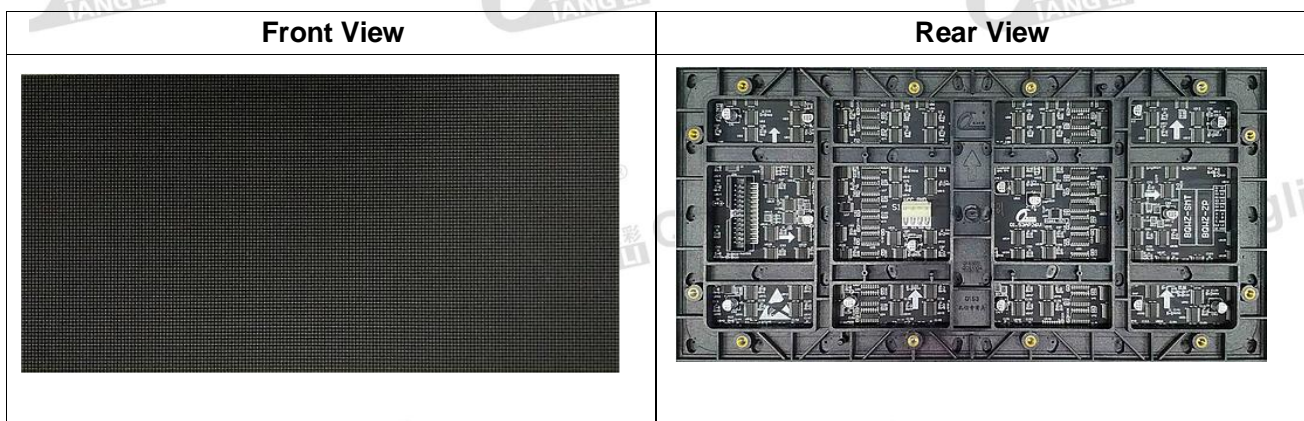
1.4. Through the system control to drive the red LED, green LED and blue LED driving IC, 4,398 billion color conversions can be formed.

1.5. The panel and the cabinet can be spliced arbitrarily in the horizontal and vertical directions to form different sizes of display screens.

1.6. Features

- High-quality lamps, high-efficiency lamp brightness utilization rate, while guaranteeing lamp lifespan and high-quality plastic component
- High contrast can achieve good display effect.
- The weight is easy to install and disassembly.
- Single point and single lamp maintenance can be carried out, with low cost.
- It is driven by a constant current, with uniform light emission and low power consumption.

1.7. Module Picture



1.8. MG Cabinet 640*480



2. Technical Specification

Module	Pixel Pitch	3.98mm	Pixel Density	62500Dots/m ²
	Configuration	1R1G1B	LED Lamp	SMD2020
	Size (Width*Height*Depth)	320*160*14mm	Weight	0.35kg±0.01kg
	Structure	Lamp & IC in same PCB	Resolution	80*40=3200Dots
	Input Voltage (DC)	4.5±0.1V	Maximum Current	≤5.3A
	Power Consumption	≤24W	Driving Method	Constant Current 1/20 Scan
	40A Power Supply for	5-6 pcs module	50A Power Supply for	6-7 pcs module
	40A PFC Power Supply for	6-7 pcs module	80A Power Supply for	10-12 pcs module
Cabinet	Cabinet Size (Width*Height*Thickness)		640mm*480mm*84mm (Thickness including module、 cabinet and connecting piece)	
	Cabinet Pixel Density		160*120=19200Dots	
	Cabinet Area		0.307m ²	
	Cabinet Weight		9.95kg±0.05 kg	
	Cabinet Max Power Consumption		≤143W	
	Average Power Consumption (1/3 Max)		≤48W	
	Distribution Power (Power Supply Capacity 78%)		≤183W	
Screen	Brightness	≥900cd/m ²	Brightness Uniformity	>0.95
	Horizontal Viewing Angle	140 ±10 degree	Vertical Viewing Angle	130 ±10 degree
	Best Viewing Distance	≥3.98m	Black Spot Ratio	< 0.0003 ; 0 when shipped from the factor
	Max Power Consumption	≤909 W/m ²	Operation Environment	Indoor
	Grayscale	14-16bits (RGB each)	Display Color	4398 Billion
	Frame Frequency	≥60 frame/sec	Refresh Frequency	≥3840 Hz
	Control Mode	Computer control, Point-to-point, Video synchronization, real-	Brightness s	256-grade manual / automatic

	time display	Adjustment	
Input signal	DVI/VGA/HDMI/DP, composite video signal, S-VIDEO, YpbPr(HDTV)		
Life Span	≥100,000 hours	Average Failure Free Time	≥10,000 hours
Attenuation (3 years later)	≤15%	Operating Humidity	10%-65% RH (No condensation)

3. Amplitude range

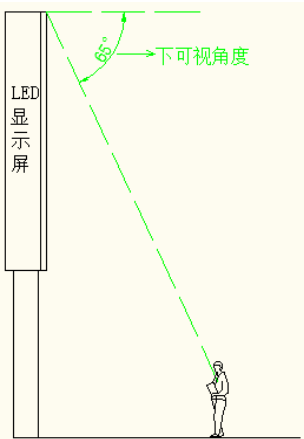
Screen installation method: It can be used as indoor rental, and supports fixed installation, hoisting and wall installation etc, to meet the needs of various indoor installation environments.



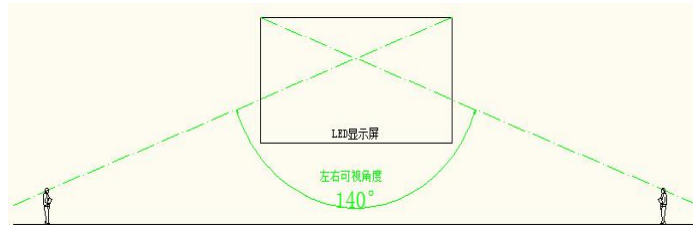
4. Screen acceptance requirements and methods:

4.1. Screen brightness: adjust the screen to full brightness, adjust the brightness efficiency in the test software to 80% on the computer, and use a light gun to measure the brightness of the screen within 10 minutes. Measuring the brightness requires that the light gun should be aimed at the screen body. It is best to measure the light gun to keep the screen body level, make sure that the black position of the observation window covers more than 16 pixels, and adjust the focal length for measurement.

4.2 Viewing angle: when measuring, people stand at a position of 140° left and right of the screen, and the viewing angle below the screen is 65°. It is required that the screen has no obvious black spots and no obvious dark blocks.



Screen upper and lower viewing angle



Left and right viewing angles of the screen

4.3. Grounding: The shell, box and screen structure of the switching power supply are properly grounded, the grounding point is correctly marked with the grounding mark, and a spot check is carried out every six months;

4.4 Lightning protection treatment: the building is required to have lightning rod or lightning protection belt facilities and be effectively grounded, and the power distribution box is required to be equipped with a surge protector, and the lightning protection facilities are required to be inspected every six months.