



福建福盛达电子有限公司

Fujian Fushengda Electric Co.,LTD

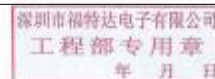
APPROVAL SHEET

承认书

Customer 客户名称	
Part NO. 产品型号	FSD040H7007-A
Product type 产品内容	Mode: Transmissive type .NormallyBlack. TFT LCD Module LCD Module: Graphic480RGB*480Dot-matrix
Remarks 备注栏	☐ APPROVAL FOR SEPCIFICATIONS ONLY ☒ APPROVAL FOR SEPCIFICATIONS AND SAMPLE
Signature by Customer: 客户确认签章	

LEAGEND LCM R&D CENTER:

Technical Department: 研发部门	Quality Assurance Department 质量保证部门	Approved by:核准
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1. GENERAL SPECIFICATION

- 1 Resolution 分辨率: 480xRGBx480
- 2 Module Size 模组尺寸: 74.65x76.17x2.13mm
- 3 Panel Active Area 可视区域: 71.856(H)x70.176(V)mm
- 4 Pixel Arrangement 像素排列: RGB
- 5 Viewing Direction 视角: ALL o'clock
- 6 DriverIC 驱动芯片: -
- 7 Interface 接口方式: SPI+RGB24Bit
- 8 Light Source 背光源: 8 die Whiteside LED
- 9 NTSC 色彩饱和度: 60% (TYP)
- 10 Contrast Ratio 对比度: 800
- 11 Luminance 亮度: 700 cd/m² (TYP)
- 12 Number of Colors 颜色数量: 16.7M
- 13 Display Mode 显示模式: Normally Black
- 14 Panel Type 面板类型: TFT

2. MAXIMUM ABSOLUTE LIMIT

Item	Symbol	Standard value	Unit
Power supply voltage for logic	VCC	-0.3~+6	V
	VDDI	-0.3~+4.5	V
Operating temperature	Topr	-10~+60	°C
Storage temperature	Tstg	-20~+70	°C

Note: Voltage greater than above may damage the module

All voltages are specified relative to VSS=0V

3. ELECTRICAL CHARACTERISTICS.

DC Characteristics

Item	Symbol	Min	Typ	Max	Unit	Test condition
Supply voltage for logic	V _{CC}	2.5	2.8	3.6	V	-
Supply voltage for I/O	V _{DDI}	1.65	2.8	3.3	V	-
Backlight voltage	V _{BL}	-	18	-	V	I _{BL} =40mA



5.PIN DESCRIPTION.

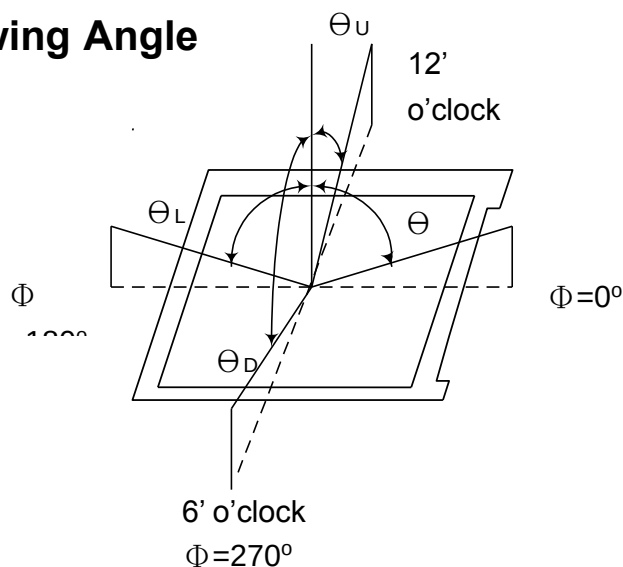
Pin No.	Symbol	Function
1	LEDK	Cathode of LED Backlight
2	LEDA	Anode of LED Backlight
3	GND	Ground
4	VCC	Voltage Common Collector
5-12	R0-R7	Red data input
13-20	G0-G7	Green data input
21-28	B0-B7	Blue data input
29	GND	Ground
30	DCLK	Clock signal
31	DISP	Display Enable signal
32	HSYNC	Horizontal sync signal
33	VSYNC	Vertical sync signal
34	DE	Data Enable signal
35	NC	No Connection
36	GND	Ground
37	RESET	Reset Signal
38	SDA	Master Out Slave In/Master In Slave Out
39	SCLK	Serial Clock
40	CS	Chip Select



6. LCM Optical Characteristics

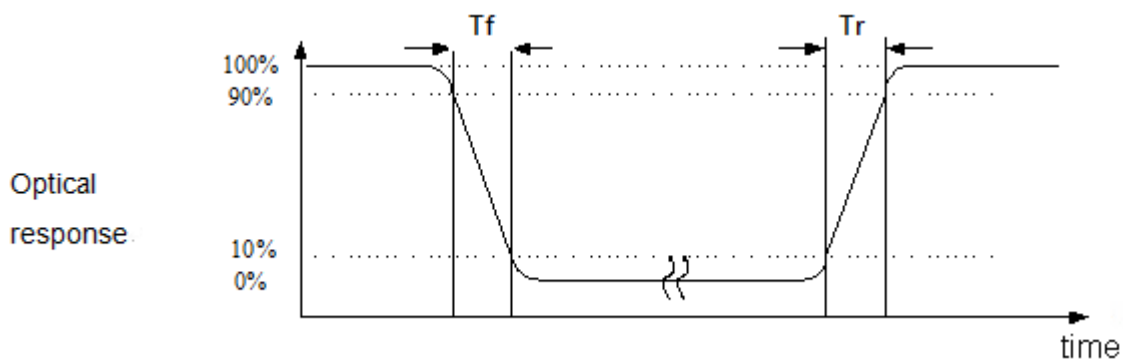
Item		Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Transmittance (with Polarizer)		T (%)	Θ=0 Normal viewing angle	—	(4.2)	—	%	Measuring with normal polarizer , Reference Only Base on Vop=5.1V
Transmittance (without Polarizer)		T (%)		—	(14.7)	—	%	
Contrast Ratio		CR		640	800	—	—	(1)(2)
Response Time		T _R +T _F		—	25	35	msec	(1)(3)
Color Gamut	(%)			55	60	—	%	C-light
Color Chromaticity (CIE1931)	White	W _x		—	TBD	—	—	(1)(4) CF glass C-light
		W _y		—	TBD	—		
	Red	R _x		—	TBD	—	—	
		R _y		—	TBD	—		
	Green	G _x		—	TBD	—	—	
		G _y	—	TBD	—			
	Blue	B _x	—	TBD	—	—		
		B _y	—	TBD	—			
Viewing Angle	Hor.	Θ _L	CR>10	70	80	—	—	(1)(4) Measuring with normal polarizer , Reference Only
		Θ _R		70	80	—		
	Ver.	Θ _U		70	80	—		
		Θ _D		70	80	—		
Optima View Direction		Free						(5)

7. LCM Viewing Angle



Viewing angle is the angle at which the contrast ratio is greater than 10. The angles are determined for the horizontal or x axis and the vertical or y axis with respect to the z axis which is normal to the LCD surface.

8. Response time



Response time is the time required for the display to transition from white to black (Rising time, T_r) and from black to white (Falling time, T_f) for additional information.



9. Reliability Test Items

Test Item 测试项目	Test Condition 测试条件	Test result determinant gist 实验结果判定
高温存储	70±3℃, 96H;	试验结束后,已测试的 LCD 样品必须在室内正 常温湿 度环境下放置2~4个小时以上才 能进行功能和外观检查, 样品不 允许有以下缺陷: 1.模块中有气泡 ; 2.; 不显示 ; 3; 玻璃破碎; 4.需要满足模块电气性能。
低温存储	-20±3℃, 96H;	
高温运行测试	60±3℃, 96H;	
低温运行测试	-10±3℃, 96H;	
高温高湿	50℃±3℃,90%±3%RH, 120H;	
冷热冲击	-20℃/0.5h~25℃/10MIN~+70℃/0.5h for a total 10 cycles;	
静电测试	±2KV, Human Body Mode, 150pF/330Ω; ±8KV, Air Mode, 150pF/330Ω;	
震动测试	Random vibration , 1. 5.0Hz,0.01g ² /Hz,0.0dB/Oct 2.100.0Hz,0.01g ² /Hz,-0.126xE+02dB/Oct 3. 300.0Hz, 0.0001g ² /Hz, z axial 30 minutes,-z axial 10 minutes, x axial 10 minutes, y axial 10 minutes.	
Contact discharge	±2kV,±4kV to each points @ 10 discharges with +/- polarity (150pF, 330Ω),display power	
Mechanical Drop (with carton)	Height: 61cm 1 corner, 3edges, 6surfaces	

Remark: 注意:

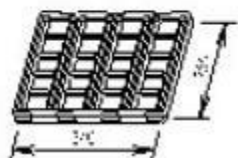
- 1:每个被测试的模块只能用于其中的一个测试项目。
2. 每个测试项目的样品数量为2片。
- 3.故障判断标准:基本规格,电气特性,机械特性,光电特性。



10. Packing Method



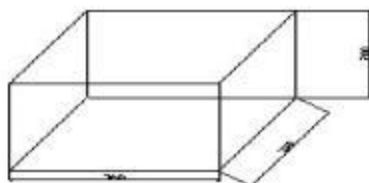
一个成品



20 个成品装在一个吸塑盘内，每层间加珍珠棉



20 盘捆成一捆上下加珍珠棉



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