

PRODUCT SPECIFICATION

FOR LCD MODULE

MODULE NO: (模组型号) 98-03065-7324A-K

CUSTOMER: (客户) 蓝思

CUSTOMER NO: (客户 MPN) S09S

(客户物料编码) _____

APPROVED BY CUSTOMER 客户签署栏			
Approved by 审核		Remark 备注	
APPROVED BY DJN 帝晶签署栏			
Prepared by 制作	Checked by 检查		Approved by 审核
	电 子	结 构	
黎正奎	黎正奎	叶才禄	李坤伟

REVISION RECORD

修改记录

REV NO. 版本	CONTENTS 内容	REV DATE 修改日期	REMARKS 注释
A0	First release	2026.3.9	初版

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1.General description （基本规格）

Item	Specification	Unit
Screen Size （屏幕尺寸）	6.56	inches
Outline Dimension （外形尺寸）	73.53*177.48*2.38	mm
Display area (可视区)	67.93(H) x 152.09(V)	mm
Resolution （分辨率）	720RGB(H) x1612 (V)	pixels
Pixel pitch (画素间距)	0.09435(H) × 0.09435(V)	mm
Pixel arrangement （画素排列）	RGB Vertical stripe	
Display mode （显示模式）	IPS	
Surface treatment （表面处理）	AF	
Module Weight （模组重量）		g
Driver IC （驱动 IC ）	Driver IC: FT8057M	
	Touch IC: FT8057M	
Interface （接口方式）	LCM: MIPI	
	Touch: I2C	
Display Operating Mode 显示工作模式	Normally Black	-
LCM Input voltage 模组输入电压	IOVCC=1.8V, VSP=6.0V, VSN=-6.0V	V

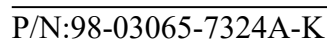
Notes 1: Refer to mechanical drawing

描述 1: 参考结构图

2.Pin Assignment （接口定义）

Connector: Molex/OK-23GM030-04

Pin No	Symbol	Description
1	LCM_AVEE	-6.0V input power
2	LCM_AVDD	6.0V input power
3	NC	NC
4	TP_I2C_SDA	Touch IIC data input
5	TP_I2C_SCL	Touch IIC clock input
6	TS_INT_N	Touch interrupt signal
7	TS_REST_N	Touch Reset signal
8	LCD_RST_N	Display RESET PIN
9	TE	Tearing Effect(H=1.8V L=0V /Output)
10	IOVCC	Power supply, 1.8V
11	IOVCC	Power supply, 1.8V
12	NC	NC
13	LCM_LED+	LED+
14	NC	NC
15	LCM_LED-	LED-
16	LCD_ID	GND
17	DSI_D2P_CON	MIPI differential data2 input (Positive)
18	DSI_D2N_CON	MIPI differential data2 input (Negative)
19	GND	Ground
20	DSI_D1P_CON	MIPI differential data1 input (Positive)
21	DSI_D1N_CON	MIPI differential data1 input (Negative)
22	GND	Ground
23	DSI_CLKP_CON	MIPI differential clock input (Positive)
24	DSI_CLKN_CON	MIPI differential clock input (Negative)
25	GND	Ground
26	DSI_D0P_CON	MIPI differential data0 input (Positive)
27	DSI_D0N_CON	MIPI differential data0 input (Negative)
28	GND	Ground
29	DSI_D3P_CON	MIPI differential data3 input (Positive)
30	DSI_D3N_CON	MIPI differential data3 input (Negative)



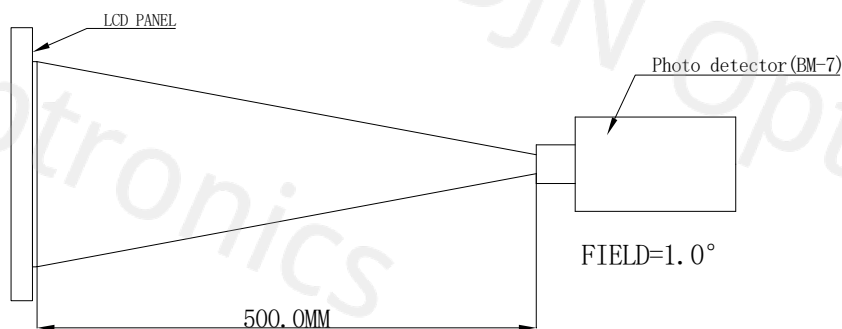
4. Optical Characteristics (光学特性)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Luminance (with lens)	Bp	$\theta=0^\circ$	350	400	--	Cd/m ²	Notes(1) ,Notes(4) (@20mA)
Brightness Uniformity (均匀度)	Br	$\Phi=0^\circ$	80	85	--	%	Notes(7)
Visual angle (视角)	θU		80	85		Degree	Notes(6)
	θD		80	85			
	θL		80	85			
	θR		80	85			
Contrast Rate (对比度)	Cr	$\theta=0^\circ$	1000	1500	--	--	Notes(3)
Response Time (响应时间)	Tr+Tf	$\Phi=0$	--	25	30	msec	Notes(2)
25Color Coordinate (色坐标)	Wx	$\theta=0^\circ$ $\Phi=0$	0.275	0.295	0.315	--	Notes(1) ,Notes(4)) R,G,B 色坐标供参考
	Wy		0.295	0.315	0.335	--	
	Rx		0.588	0.618	0.648	--	
	Ry		0.315	0.345	0.375	--	
	Gx		0.288	0.318	0.348	--	
	Gy		0.566	0.596	0.626	--	
	Bx		0.121	0.151	0.181	--	
	By		0.025	0.055	0.085	--	
NTSC (色域)			62	67	--	%	
Flicker	Amount			-28		dB	
Ganma	-		1.9	2.2	2.5		

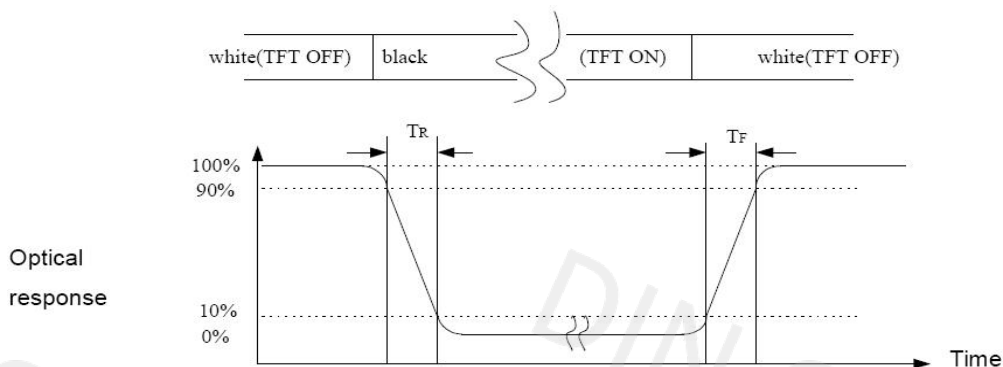
Test condition (测试条件) :

- LCM signal input refer to “5.3 DC Characteristics”, and the ambient temperature is 25℃
(模组信号输入参考“5.3 直流特性”，温度要求 25℃)
- Measuring Equipment (量测仪器)
BM-7 for optical characteristics. Measuring spot size: 5 ~ 15 mm
(光学特性量测使用 BM-7，量测点距：5~15mm)
- The test systems refer to Notes(1) (测试系统参考 描述 (1))

Notes (1) Definition of optical measurement setup （描述（1）光学量测系统定义）



Notes (2) Definition of Response Time: Sum of TR and TF （描述（2）响应时间：TR+TF）



Notes (3) Definition of Contrast Ratio (CR): （描述（3）对比度定义）

Measured at the center point of panel （量测面板的中心点）

$$CR = \frac{\text{Luminance with all pixels white}}{\text{Luminance with all pixels black}}$$

Notes (4) the color coordinate and luminance are measured the centre point of the active area .

（描述（4）色坐标及亮度值均量测可视区的中心）

Notes (5): Measured the luminance with Fig 1 pattern , than measured the luminance with Fig 2 pattern

（描述（5）首先量测画面参考 Fig1 ,然后按 Fig2 画面量测）

Calculation Formula: $CT = (|LA11 - LA1| / LA11) * 100 (\%)$,

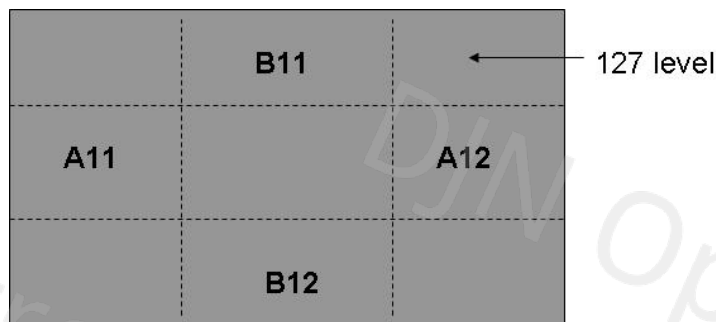


Fig 1: Gray pattern of 127 level

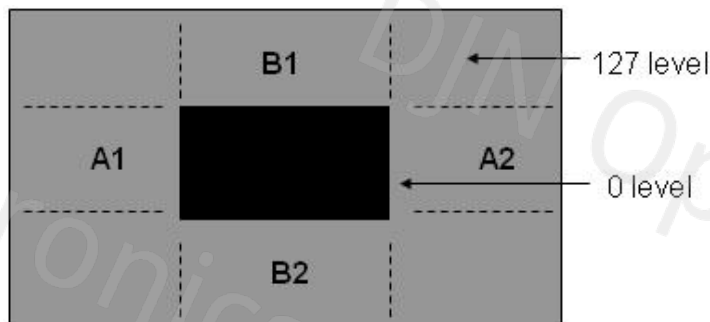
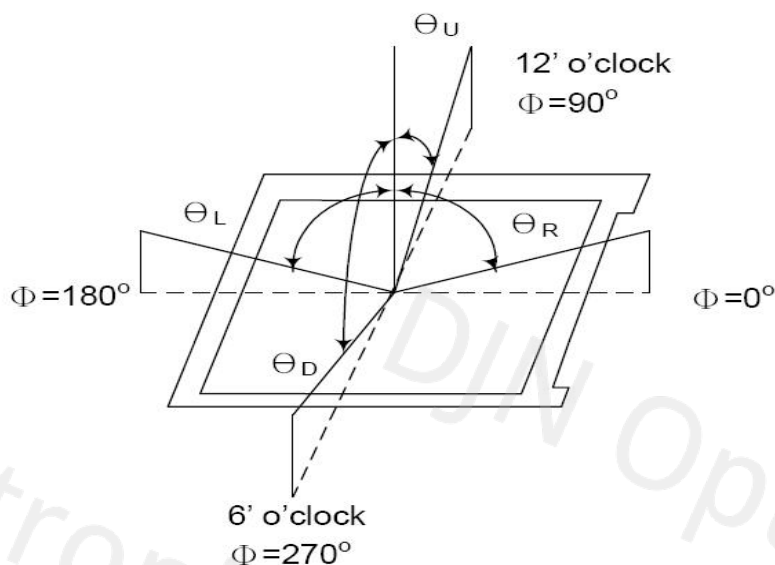
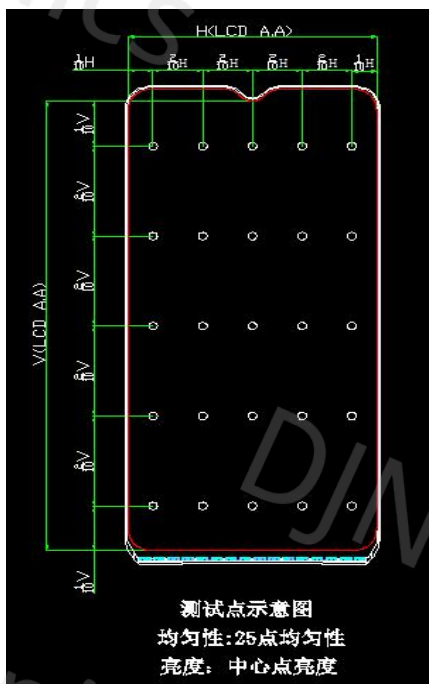


Fig 2: Window pattern with 127 level

Notes (6) Definition of Viewing Angle : (描述 (6) 视角定义)

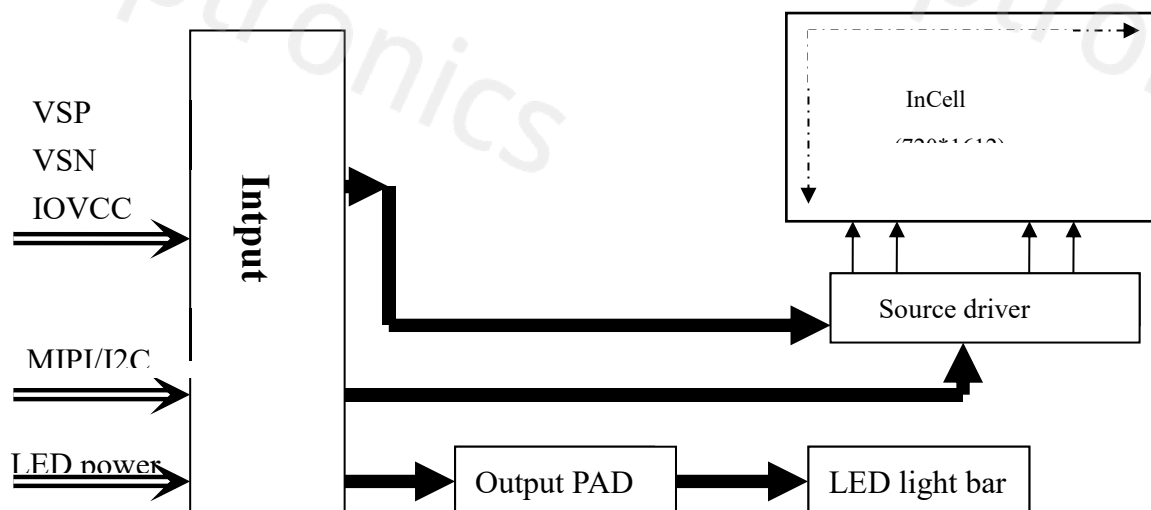


Notes (7) Definition of brightness uniformity (描述 (7) 均匀性定义)



5. Electrical Characteristics (电气特性)

5.1 Function Block (功能模块)



5.2 Electrical Absolute Rating (电气极限操作) -For driver IC

Parameter 参数	Symbol 符号	Min 最小值	Max 最大值	Unit 单位
Supply voltage for logic 逻辑电压 I/O	IOVCC-VSS	-0.3	+2.0	V
Supply voltage 供电电压	VSP ~ AVSS	-0.3	+6.5	V
Supply voltage 供电电压	VSN ~ AVSS	-6.5	+0.3	V
Charge pump voltage 升压电压	VGH-VGL	-0.3	+32	V
Differential Input Voltage bias 差分输入电压	VHSIN	0.7*IOVCC	IOVCC	V
Operating temperature 操作温度	TOPR	-20	+70	°C
Storage temperature 存储温度	TSTG	-30	+80	°C

Note: If one of the above items is exceeded its maximum limitation momentarily, the quality of the product may be degraded. Absolute maximum limitation, therefore, specify the values exceeding which the product may be physically damaged. Be sure to use the product within the recommend range.

5.3 DC Characteristics （直流特性）-For driver IC

Parameter 参数	Symbol 符号	Min 最小值	Typ. 典型值	Max 最大值	Unit 单位
Logic Operating voltage 逻辑电压 I/O	IOVCC	1.65	1.8	1.95	V
Operating Voltage 工作电压	VSP	5.85	6	6.15	V
Operating Voltage 工作电压	VSN	-5.85	-6	-6.15	V
Input voltage “H” level 输入高电平	V _{IH}	0.7*IOVCC	-	IOVCC	V
Input voltage “L” level 输入低电平	V _{IL}	0	-	0.3*IOVCC	V
Output voltage “H” level 输出高电平	V _{OH}	0.8*IOVCC	-	IOVCC	V
Output voltage “L” level 输出低电平	V _{OL}	0	-	0.2*IOVCC	V

5. 4Timing Setting (时序设定)-long V

不同模式会有不同

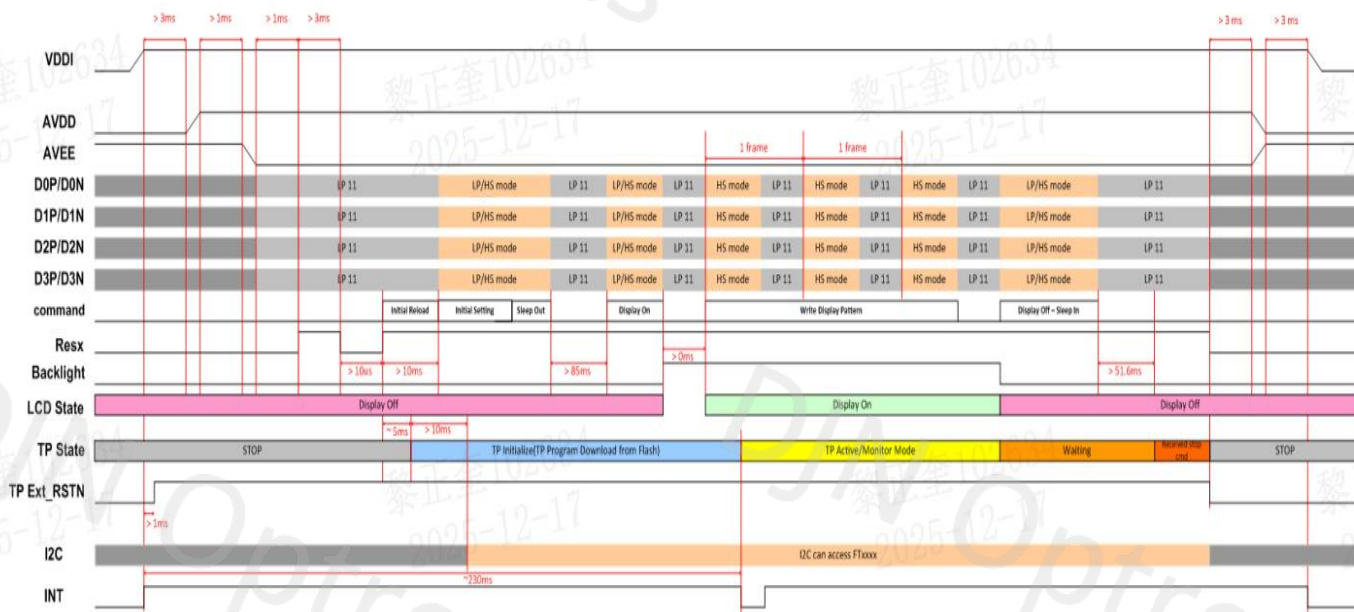
参数	推荐设定
H Active	720
V Active	1612
VS	4
VBP	32
VFP	22
HS	8
HBP	20
HFP	22
Frame rate	60HZ

5.5 Power On/Off Sequence （电源开/关时序）

5.5.11 power on/off

w/ Flash (3 Power mode)

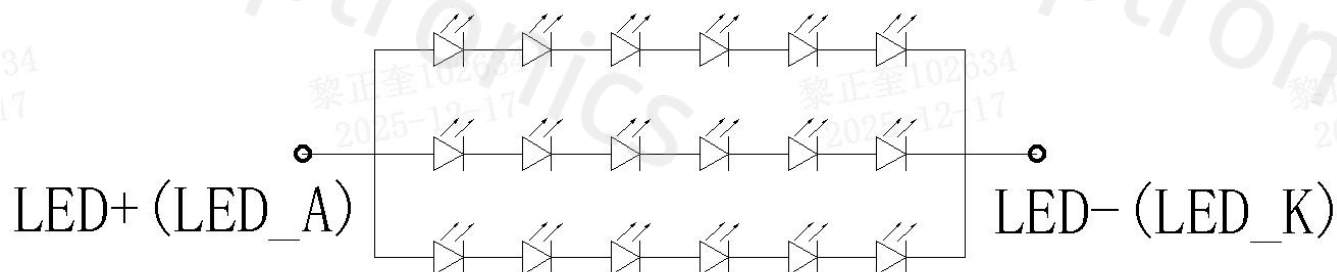
3 Power mode Power on/off sequence



备注：其他相关 IC 时序以 IC 供规格书输出为准。

5.6 BLU Schematic / Power consumption of Backlight （背光功耗）

5.6.1 BLU schematic



背光LED：6串3并

LED单颗LED电压2.7~2.9V

总电流：60mA 总电压：16.2V-17.4V

5.6.2 Power consumption of Backlight

Parameter	Symbol	Values			Units	Notes
		Min	Typ.	Max		
LED Current	I_{LED}	--	60	--	mA	For each LED 20mA
LED Forward Voltage	V_{bl}	16.2	16.8	17.4	V	6S3P
Backlight Power Consumption	p_{bl}	--	1008	--	mW	6S3P

6. Reliability Test Items （可靠性测试项目）

No.	Test Item	Test Condition
1	High Temperature High Humidity	60°C, 95%RH ,240h
2	High Temperature Operation	70°C,240h
3	Low Temperature Operation	-20°C,240h
4	High Temperature Storage	80°C,240h
5	Low Temperature Storage	-40°C,240h
6	Thermal Shock	【-40±3°C/30min<->80±3°C/30min】 100cycles
7	salt spray	5%NaCl 溶液, 35°C~85%RH 48H
8	High Temperature High Humidity	85°C~85%RH 240H

蓝思供货标准标签

供应商名称: 帝晶光电

RID:
DJ202504100001 (供应商2位+日)

P/N:
400100041 (固定)

MPN:
98-03065-7324A-K (DJN料号)

Lot NO:
20250410 (生产批次号, 填写日期)

D/C:
20250410 (填写日期)

QTY:
120 (填写数量)



DJ202504100001;400100041;98-03065-7324A-K;20250410;120

小写间隔符号

NO.	CONTENT	DATE
A	NIP	20251218
M		
E		
N		
D		

Model No.	98-03065-7324A-K	Part No.	7324A-K外箱标签内容图	
Drawing Title	外箱标签	Drawn	叶才禄	A0
Drawing No.	D-RD-007-26	Checked	周家乾	Unit MM
Scale 1:1	第三角法	Approve	金飞	Page 1/1