

Pacific Goal Optronics Limited

产品承认书

产品名称: TFT LCD
产品型号: PG1733CNTC
客户项目:
版 本: V0
日 期: 2019-07-19

客户 签回 (APPROVED BY CUSTOMER)	
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制表 (Prepared by)	检查 (Checked by)	审核 (Approved by)

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1. 机构说明 (GENERAL INFORMATION)

2.

项目 (Item)	内容 (Contents)	单位
外型尺寸 (Outline dimensions)	33.3(W) * 42.7 (H) * 2.56 (T)	mm
显示尺寸 (Module size)	1.77"	inch
显示分辨率 (Number of Dots)	128(RGB) *160Pixels	-
动态显示区 (Active area)	28.03 (W) *35.04(H)	mm
像素大小 (Pixel pitch)	-	um
LCD 类型 (The LCD type)	TN /Transmissive	-
视角方向 (Viewing direction)	12 o'clock	-
驱动 IC (LCD Driver IC)	ST7735S	-
TP 类型 (Touch screen type)	/	
背光类型 (Backlight type)	并联(2*LED)	pcs

2.接口定义 (INTERFACE DESCRIPTION)

Pin No.	Symbol	Functional
1	RESET	Reset pin. Setting either pin low initializes the LSI.
2	GND	System ground.
3	TE	Tearing effect output pin to synchronize MCU to frame writing, activated by S/W command.
4	GND	System ground.
5	IOVCC	Power supply for interface pins. (1.65V-3.3V)
6	CS	Chip select input pin
7	RS	-Display data/command selection pin in parallel interface. -This pin is used to be serial interface clock.
8	SCL	This pin is used as the serial interface clock in 3wire 9bit/4wire 8bit serial data interface.
9	SDI	The data is applied on the rising edge of the SCL signal. If not used, fix this pin at VDDI or VSS.
10	VCC	Power supply for liquid crystal power supply

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		analog circuit. (2.5V-3.3V)
11	GND	System ground.
12	LED-A	Backlight positive
13	LED-K	Backlight negative
14	GND	System ground.
15	LED-K	Backlight negative

3. 各参数极限值 (ABSOLUTE MAXIMUM RATINGS)

参数 (Parameter)	符号 (Symbol)	最小值(MIN)	典型值(TYP)	最大值 (MAX)	单位 (Unit)
操作温度 (Operation temperature)	TOP	-10	-	60	°C
存储温度 (Storage temperature)	TST	-20	-	70	°C

4. 电气特性 (ELECTRICAL CHARACTERISTICS)

参数 (Parameter)	符号 (Symbol)	最小值 (MIN)	典型值 (TYP)	最大值 (MAX)	单位 (Unit)
逻辑电压 (Logic operating voltage)	IOVCC	1.65	1.8	3.3	V
模拟电源电压 (Analog operating voltage)	VCC	2.4	2.8	3.3	V
输入高电平电压 (Input voltage "H" level)	VIH	0.7IOVCC	-	IOVCC	V
输入低电平电压 (Input voltage "L" level)	VIL	0	-	0.3IOVCC	V
输出高电平电压 (Output voltage "H" level)	VOH	0.8IOVCC	-	-	V
输出低电平电压 (Output voltage "L" level)	VOL	0	-	0.2IOVCC	V

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5. 背光特性 (BACKLIGHT CHARACTERISTICS)

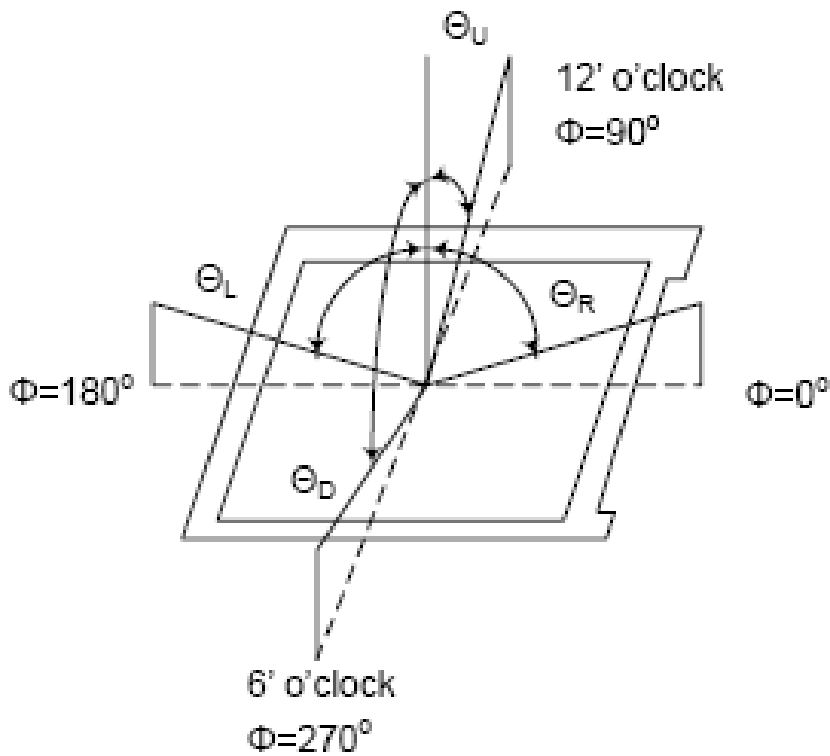
项目 (Item)	符号 (Symbol)	额定值 (Typ)	单位 (Unit)
工作电流 (Working current)	I_{BL}	40	mA
工作电压 (Working voltage)	V_{BL}	3.2	V
模组亮度 (Module brightness)	L	100	CD/M ² (注)
色坐标 (Color coordinates)	X=0.3	Y=0.3	样品为准 (The sample shall prevail)

6. 光学特性 (OPTICAL CHARACTERISTICS)

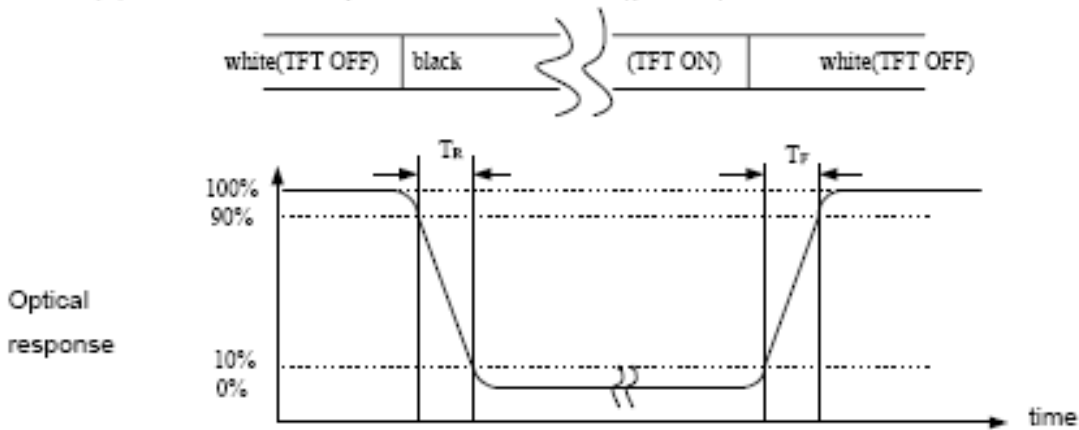
Item	Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Transmittance (without Polarizer)	T(%)	—	—	17.3	—	%	
Contrast Ratio	CR	$\Theta=0$	400	500	—	—	(1)(2)
Response Time	Rising	Normal viewing angle	—	4	8	msec	(1)(3)
	Falling		—	12	24		
Color Gamut	S(%)			60		%	
Color Chromaticity (CIE1931)	White	W_x	0.283	0.303	0.323		(1)(4) CF glass
		W_y	0.305	0.325	0.345		
	Red	R_x	0.606	0.626	0.646		
		R_y	0.314	0.334	0.354		
	Green	G_x	0.257	0.277	0.297		
		G_y	0.529	0.549	0.569		
	Blue	B_x	0.122	0.142	0.162		
		B_y	0.102	0.122	0.142		
Viewing Angle	Hor.	Θ_L	CR>10	35	45	—	
		Θ_R		35	45	—	
	Ver.	Θ_U		40	50	—	
		Θ_D		10	20	—	
View Direction	12 O'clock						(5)

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Note (1) Definition of Viewing Angle :

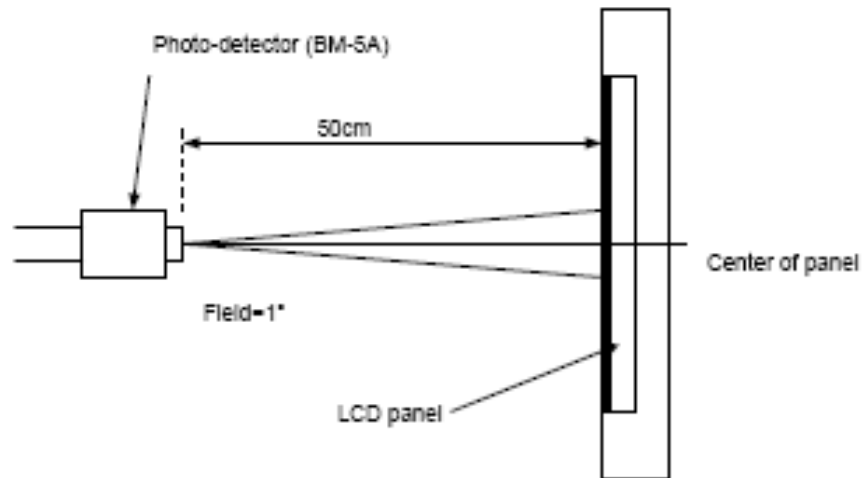


Note (3) Definition of Response Time: Sum of T_R and T_F

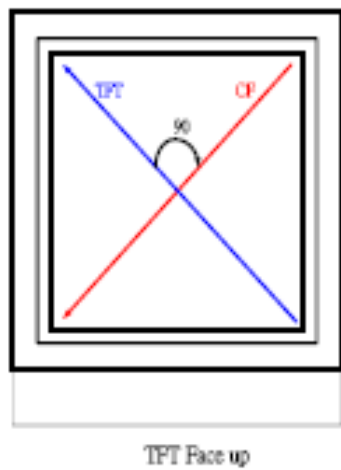


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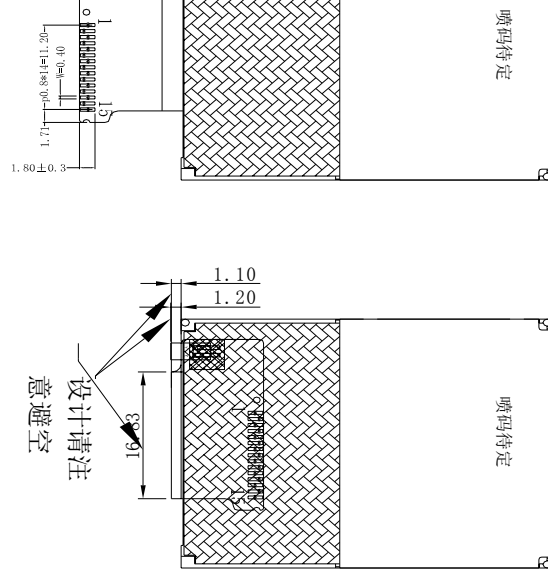
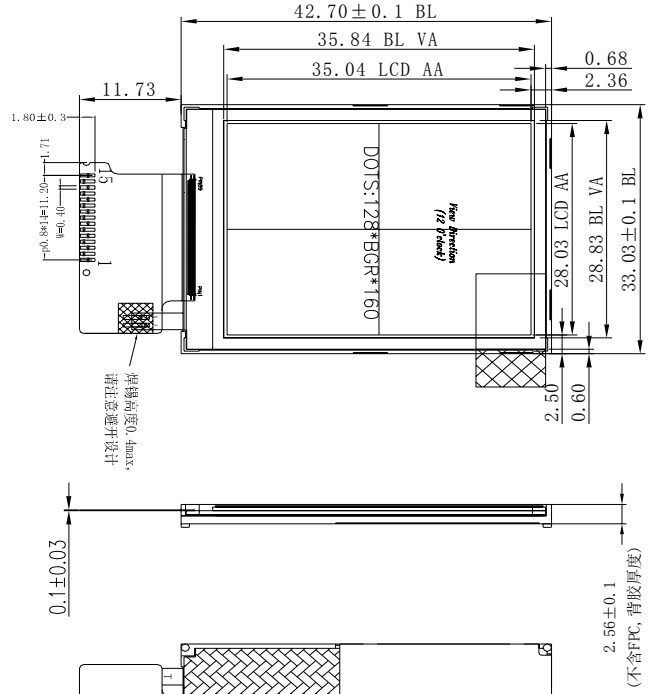
Note (4) Definition of optical measurement setup



Note (5) Rubbing Direction (The different Rubbing Direction will cause the different view direction).



7. 机构图 (MODULE OUTLINE DRAWING)



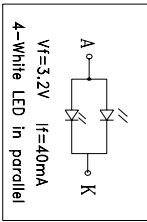
范倪彬
程羲堤
堯

PIN	DESCRIPTION
1	RSTB
2	GND
3	TE
4	GND
5	TVDDV(1.8V)
6	CS
7	RS(DATA2) 做VGA 分辨率用
8	RLG2
9	SDI
10	VCC(2.8V)
11	GND
12	LEDA 背光灯正极
13	LED_K1 背光灯负极
14	GND
15	LED_K2 背光灯负极

4 盘 1 料 堯
SPI 堯 堯

NOTES:

- 1、Display type: 1.77" TFT
- 2、Viewing direction: 12 O' CLOCK
- 3、Drive IC: ST7735S+深超
- 4、Backlight color: 1 LED WHITE
- 5、Operation temperature: -10~60° C
- 6、Storage temperature: -20~70° C
- 7、LCM Operating Voltage: Vdd=2.8V
- 8、Vands: 模块可视区域, 建议外壳可视区域比Vands单边小0.3以上



TECHIRON MODEL	KLD1733CNTC		DATE	2019.07.19
SCALE	1 : 1	UNIT	mm	APPROVED
TEL: 0755-29400112-623	FAX: 0755-29400123		CHECKED	
PROJECTION:			DESIGNED	