1. GENERAL SPECIFICATION

1.1 Description

The G07024AZ01A0 is a color active matrix TFT LCD single cell using amorphous silicon TFT's (Thin Film Transistors) as an active switching devices. This panel has a 7 inch diagonally measured active area with WSVGA resolutions (1024 horizontal by 600 vertical pixel array). Each pixel is divided into RED, GREEN, BLUE dots which are arranged in vertical stripe and this module can display 16.7M colors.

1.2 Feature

-TN type for main TFT-LCD panel

-Structure COG+FPC+BL

-TN, Normal (Still), Partial, Sleep mode are available

1.3 General Specification

No.	Item	Specification	Unit	Remark
1	LCD Size	7.0	inch	-
2	Panel Type	a-Si TFT active matrix	-	-
3	Resolution	1024 x (RGB) x 600	pixel	-
4	Display Mode	Normally White	-	-
5	Display Number of Colors	16.7M	-	-
6	Viewing Direction (Gray inversion)	6 O'clock	-	Note
7	Contrast Ratio	800(Typ)	-	-
8	Luminance	250(MIN)	cd/m^2	-
9	Module Size	163.6(W) x96.8(L) x 2.7(T)	mm	Note
10	Active Area	154.21(W) x 85.92(L)	mm	Note
11	Pixel Pitch	0.0502(H) × 0.1432(V)	mm	-
12	Driver IC	HX8282A06&HX8696A01	-	-
14	Light Source	24 LEDs White	-	-
15	Interface	RGB	-	-
16	Operating Temperature	-20~70	℃	-
17	Storage Temperature	-30~80	℃	-

Note: Please refer to the mechanical drawing.

2. MECHANICAL DRAWING

TOLERANCE GRADE (±)	DIMENSION RANGE 尺寸范围 0~5	5~15	15~60	60~150	150~300	300~630
A	0.05	0.10	0.15	0.20	0.25	0.30
B	0.10	0.15	0.20	0.25	0.30	0.35

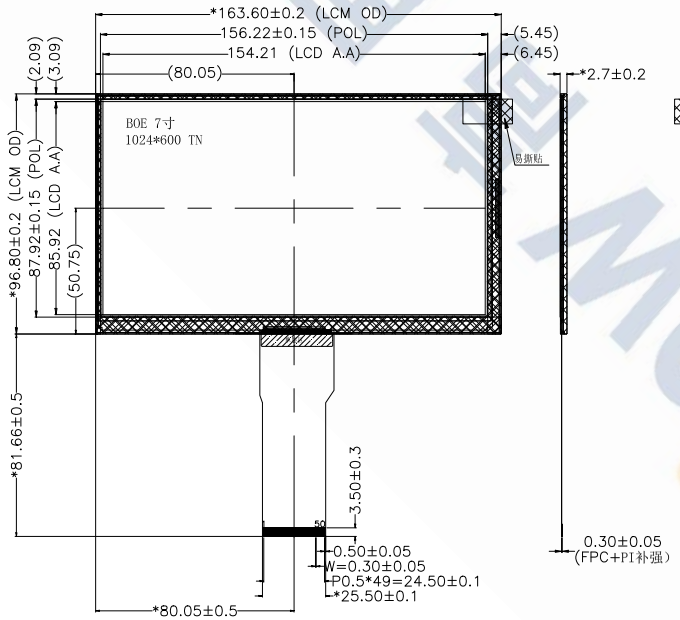
UNLESS OTHERWISE SPECIFIED
公差以上表所示，除非另有指定

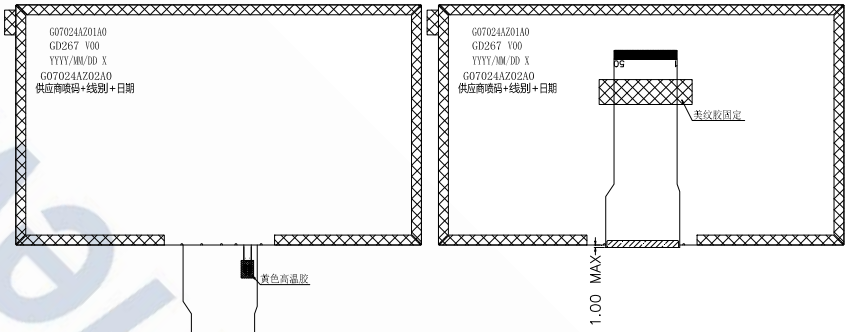
高度 —— G07024AZ01A0
项目号 —— GD3267 V00
YYYY/MM/DD X
拉线
年月日

正视图　　侧视图　　背视图

LCD PIN ASSIGNMENT:

NO	SYNBOL	NO	SYNBOL
1	LDE-A	26	G1
2	LED-A	27	G0
3	LED-K	28	R7
4	LED-K	29	R6
5	GND	30	R5
6	VCOM	31	R4
7	DVDD	32	R3
8	MODE	33	R2
9	DE	34	R1
10	VS	35	R0
11	HS	36	GND
12	B7	37	DCLK
13	B6	38	GND
14	B5	39	L/R
15	B4	40	U/D
16	B3	41	VGH
17	B2	42	VGL
18	B1	43	AVDD
19	B0	44	RESET
20	G7	45	NC
21	G6	46	VCOM
22	G5	47	DITHB
23	G4	48	GND
24	G3	49	NC
25	G2	50	NC

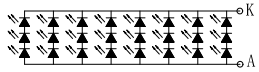




FPC弯折示意图
FPC弯折出货

备注：四周包胶

背光电路图(CIRCUIT DIAGRAM)：



电路图（8并3串）
线路简图

注意：
1、请仔细确认图纸中红色标注的尺寸和描述。
2、未注公差要求为+/-0.2mm.
3、图面标有"*" 标识的严格控制尺寸.
4、图面标注格式(...)为参考尺寸.

版本	修订	修订日期	修订内容	修订者
00		20191218	First issue	HGM

Display Type	BOE_7_1024*600", TFT LCD
Contrast Ratio	800(TYP)
Driver IC	HX8282A06&HX8696A01
Interface	RGB
Operating Voltage	VDD 3.3V
Luminance	250(MIN)
Center CIE coordinate	X=0.303±0.03, Y=0.339±0.03
Backlight unit	24 LED, Vf=9.3V, IF=160MA
Connector type	ZIF
Operation Temp.	-20° C TO 70° C
Storage Temp.	-30° C TO 80° C

LCM

TYPE 类型:	LCM	MODEL NO. 项目号:	GD3267
SCALE 比例	1:1	PART No. 料號	G07024AZ01A0
		Material 客户料号	
		COLOR 顏色	
		UNIT 單位	mm

APPROVED BY 核准	CHECKED BY 審核	DRAWN BY 繪圖

深圳市高展光电有限公司
SHENZHEN SUPERVIEW PHOTOELECTRIC CO., LTD.

3. ELECTRICAL SPECIFICATION for TFT

3.1. TFT ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN	TYP	MAX	
Power Supply for Analog	VCC	Ta=25 ºC	-0.3	3.3	3.6	V
Power Supply for Digital IO	IOVCC	Ta=25 ºC	-0.3	1.8	3.6	V

Note: Permanent damage to the device may occur if maximum values are exceeded or reverse voltage is applied.

3.2 Typical Operation Conditions

ITEM	SYMBOL	MIN	TYP	MAX	UNIT	NOTE
Digital Power Supply voltage For Lcd	VDD	2.3	3.3	3.6	V	
Analog Power Supply voltage	AVDD	6.5	9.6	13.5	V	
Gate On voltage	VGH	16	--	20	V	
Gate Off voltage	VGL	-7	--	-5	V	
Common voltage	VCOM	3.0	--	4.2	V	NOTE 1
Logic Input voltage	VIH	0.7VDD		VDD	V	
	VIL	GND		0.3VDD	V	

Note1:Please adjust Vcom to make the ficker level be minmun

4. OPTICAL CHARACTERISTICS

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit	Remark
Viewing Angle range	Horizontal	Θ_3	CR > 10	-	80	-	Deg.	WV-Pol Note 1
		Θ_9		-	80	-	Deg.	
	Vertical	Θ_{12}		-	60	-	Deg.	
		Θ_6		-	70	-	Deg.	
Luminance Contrast ratio		CR	Θ = 0°	600	800	-		Note 2
Cell Transmittance		Tr		3.9	4.2	-	%	Base on C Light Note 3
White Chromaticity		x_w		TYP. - 0.03	0.303	TYP. + 0.03		Note 4 Base on MDL
		y_w			0.339			
Reproduction of color (C light)	Red	R_x			0.605			
		R_y			0.326			
	Green	G_x			0.297			
		G_y			0.568			
	Blue	B_x			0.144			
		B_y			0.175			
Color Gamut (C light)				-	50	-	%	
Response Time (Rising + Falling)		T_{RT}	Ta= 25° C Θ = 0°	-	25	40	ms	Note 5

Note :

1. Viewing angle is the angle at which the contrast ratio is greater than 10. The viewing angles are determined for the horizontal or 3, 9 o'clock direction and the vertical or 6, 12 o'clock direction with respect to the optical axis which is normal to the LCD surface (see FIGURE 5).

2. Contrast measurements shall be made at viewing angle of Θ= 0 and at the center of the LCD surface. Luminance shall be measured with all pixels in the view field set first to white, then to the dark (black) state . (see FIGURE 5) Luminance Contrast Ratio (CR) is defined mathematically.

$$CR = \frac{\text{Luminance when displaying a white raster}}{\text{Luminance when displaying a black raster}}$$

3. Transmittance is the Value with Polarizer.

4. The color chromaticity coordinates specified in Table 6 shall be calculated from the spectral data measured with all pixels first in red, green, blue and white. Measurements shall be made at the center of the panel.

5. The electro-optical response time measurements shall be made as FIGURE 6 by switching the "data" input signal ON and OFF. The times needed for the luminance to change from 10% to 90% is Tr, and 90% to 10% is Td.

5.RELIABILITY TESTS

ITEM	CONDITION	CRITERION
Operating Temperature Test	High Temperature: +70 ºC, 96 hrs	No defects in display and operational functions
	Low Temperature: -20 ºC,96 hrs	
Storage Temperature Test	High Temperature: +80 ºC, 96 hrs	No defects in display and operational functions
	Low Temperature: -30 ºC, 96 hrs	
Humidity Endurance Test	60ºC, 90%RH, 96 hrs	No defects in display and operational functions
Thermal Shock Test	-20 ºC (30mins)～ +70 ºC (30mins) 10 cycles	No defects in display and operational functions
Electro Static Discharge	± 4KV, Human BodyMode,150pF/330Ω; ± 8KV,Air Mode,150pF/330Ω	No defects in display and operational functions

NOTE:

1) The samples must be free from defect before test, must be restored at room condition at least for 2 hours after reliability test before any inspection.

2) Before test the function of TP, the sample must be placed in room temperature for 24hrs after RA test.