TFT DISPLAY SPECIFICATION



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SPECIFICATION

CUSTOMER : _____

MODULE NO.: WF57-320240VD#003-FC

APPROVED BY: (FOR CUSTOMER USE ONLY)	PCB VERSION: DATA:

SALES BY	APPROVED BY	CHECKED BY	PREPARED BY
			葉虹蘭
ISSUED DATE: 2022/12/13			

MODLE NO：
WF57-320240VD#003-FC

RECORDS OF REVISION			DOC. FIRST ISSUE
VERSION	DATE	REVISED PAGE NO.	**SUMMARY**
0	2022/12/13		First issue

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Summary

TFT 5.7” is a TN transmissive type color active matrix TFT liquid crystal display that use amorphous silicon TFT as switching devices. This module is a composed of a TFT_LCD module, It is usually designed for industrial application and this module follows RoHs.

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General Specifications

Item	Dimension	Unit
Size	5.7	inch
Dot Matrix	320 x RGBx240(TFT)	dots
Module dimension	160(W) x 109(H) x 9.985 (D)	mm
Active area	115.2 x 86.40	mm
Dot pitch	0.12 x 0.36	mm
LCD type	TFT, Normally White, Transmissive	
View Direction	12 o'clock	
Gray Scale Inversion Direction	6 o'clock	
TFT Interface	24-bit RGB	
TFT Drive IC	HX8218+HX8615 or equivalent	
Aspect Ratio	4:3	
Backlight Type	LED, Normally White	
CTP FW Version	0x07.0x00.0x00.0x00.0xA2.0x01.0x57.0x00	
CTP IC	ILI2130 or equivalent	
CTP Interface	I2C	
CTP Resolution	16384*16384	
With /Without TP	With CTP	
Surface	Glare	

*Color tone slight changed by temperature and driving voltage.

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Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-20	—	+70	℃
Storage Temperature	TST	-30	—	+80	℃

Note: Device is subject to be damaged permanently if stresses beyond those absolute maximum ratings listed above

1. Temp. ≦60℃, 90% RH MAX. Temp.＞60℃, Absolute humidity shall be less than 90% RH at 60℃

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Electrical Characteristics

Operating conditions

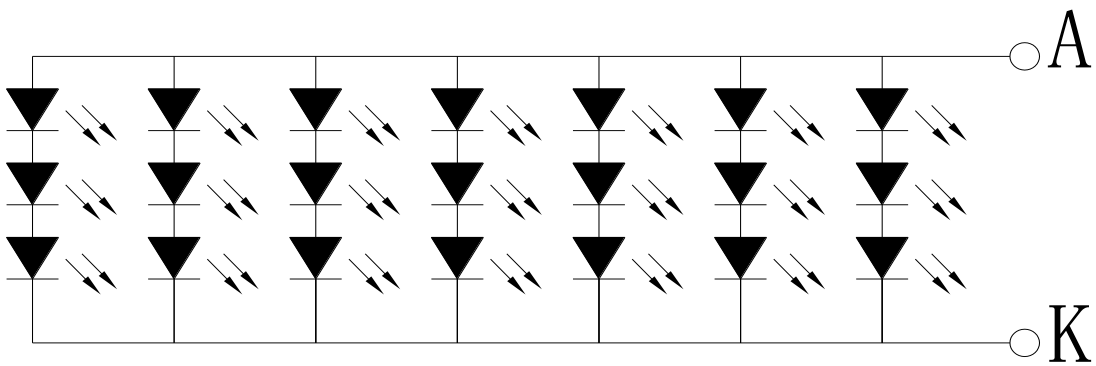
Item	Symbol	Min	Typ	Max	Unit	Remark
Supply Voltage For LCM	VCC	3.2	3.3	3.4	V	—
Supply Current For LCM	ICC	—	30	45	mA	Note1
Supply CTP	VDDT	3.1	3.3	3.5	V	
	I_{CTP}	—	56	84	mA	
Input High Volt.	VIH	0.7 VCC	—	VCC	V	—
Input Low Volt.	VIL	0	—	0.3 VCC	V	—
LCD Driving Supply Voltage	VGH	15	16	17	V	—
	VGL	-6	-5	-4	V	—
	VCOMH	—	4.5	—	V	—
	VCOML	—	-0.5	—	V	—
	AVDD	4.5	5.0	5.5	V	—

Note 1 : This value is test for VCC =3.3V , Ta=25 ℃ only

LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remark
LED current	-	-	140	-	mA	-
Power Consumption	-	1260	-	1470	mW	-
LED voltage	VBL+	9.0	-	10.5	V	Note 1
LED Life Time	-	-	50,000	-	Hr	Note 2,3,4

Note 1 : There are 1 Groups LED



Note 2 : Ta = 25 ℃
Note 3 : Brightness to be decreased to 50% of the initial value
Note 4 : The single LED lamp case.

AC CHARATERISTICS

CCIR601/656 Interface

Input signal characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit
CLK period	Tosc	-	37	-	ns
Data setup time	Tsu	12	-	-	ns
Data hold time	THo	12	-	-	ns

Hardware reset timing

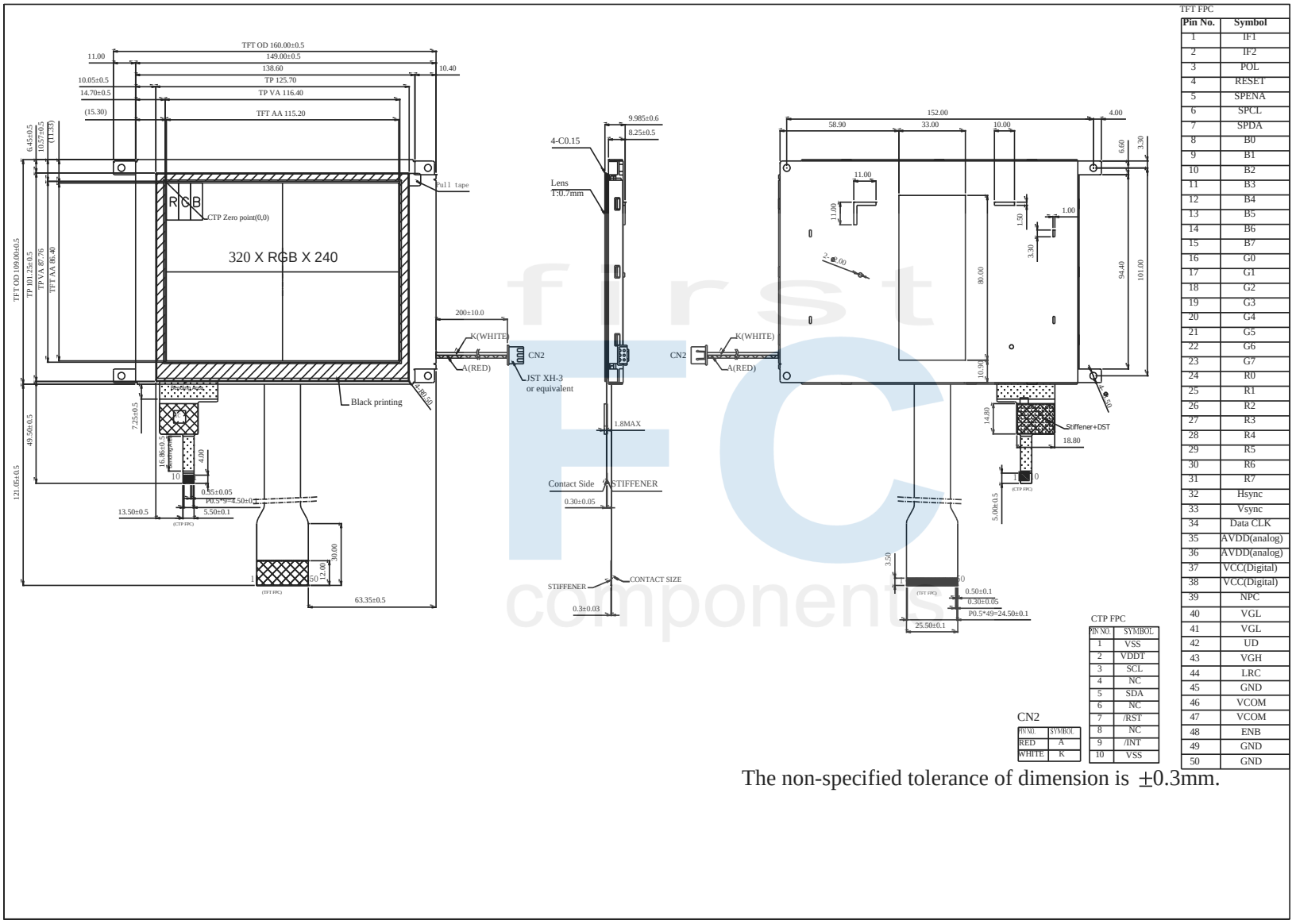
Parameter	Symbol	Min.	Typ.	Max.	Unit
Reset low pulse width	TRSB	10	-	-	μ s

Output signal characteristics

Parameter		Symbol	Min.	Typ.	Max.	Unit
Rising time		Tr	-	-	10	ns
Falling time		Tf	-	-	10	ns
Internal STH setup time		Tsus	12	-	-	ns
Internal STH hold time		THDS	12	-	-	ns
Internal data setup time		TSUD	60	-	-	ns
Internal l data hold time		THDD	40	-	-	ns
OEH pulse width		TOEH	-	1248	-	ns
OEV pulse width		TOEV	-	4992	-	ns
CKV pulse width		TCKV	-	3744	-	ns
Hsync-DEH time		T1	-	4368	-	ns
Hsync-CKV time		T2	-	2496	-	ns
Hsync-OEV time		T3	-	624	-	ns
Vsync-setup time		TSUV	-	1872	-	ns
Vsync-pulse time		TSTV	-	1	-	TH
Vsync-STV time	NTSC	TVS1	-	19	-	TH
	PAL	TVS1	-	27	-	TH
OEH-STV time		THE	-	2	-	TH
Output settling time		TOES	-	12	20	μ s

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Contour Drawing



TFT FPC

Pin No.	Symbol
1	IF1
2	IF2
3	POL
4	RESET
5	SPENA
6	SPCL
7	SPDA
8	B0
9	B1
10	B2
11	B3
12	B4
13	B5
14	B6
15	B7
16	G0
17	G1
18	G2
19	G3
20	G4
21	G5
22	G6
23	G7
24	R0
25	R1
26	R2
27	R3
28	R4
29	R5
30	R6
31	R7
32	Hsync
33	Vsync
34	Data CLK
35	AVDD(analog)
36	AVDD(analog)
37	VCC(Digital)
38	VCC(Digital)
39	NPC
40	VGL
41	VGL
42	UD
43	VGH
44	LRC
45	GND
46	VCOM
47	VCOM
48	ENB
49	GND
50	GND

CTP FPC

PIN NO.	SYMBOL
1	VSS
2	VDDT
3	SCL
4	NC
5	SDA
6	NC
7	/RST
8	NC
9	/INT
10	VSS

CN2

PIN NO.	SYMBOL
RED	A
WHITE	K

The non-specified tolerance of dimension is ±0.3mm.

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