深圳市勋瑞光电科技有限公司
Xunrui Shenzhen Optoelectronics Technology Co., Ltd.

TFT LCM Approval Sheet

PRODUCT SPECIFICATIONS

MODULE NO: H024PQ37E2504

For Customer: _____

Approved by: _____

Signature: _____

Date: _____

Prepared	Checked	Approved	Date

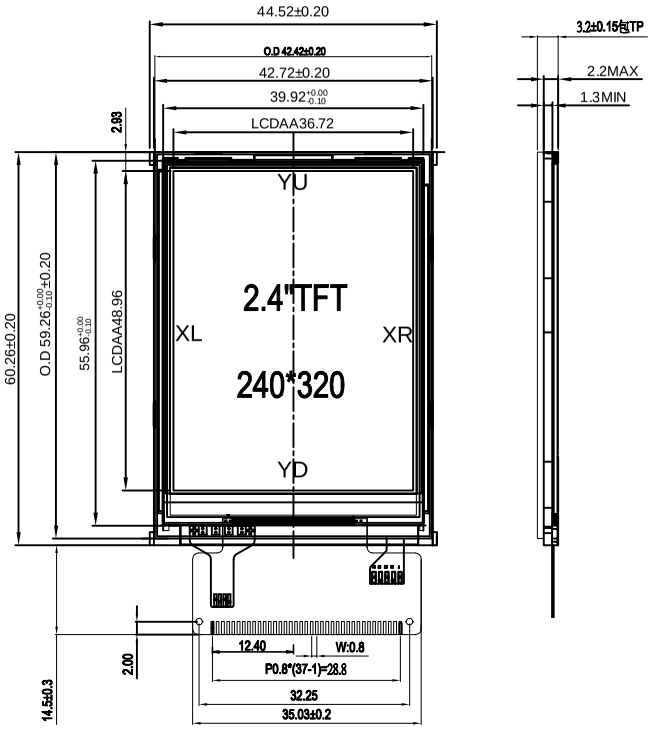
CONTENTS

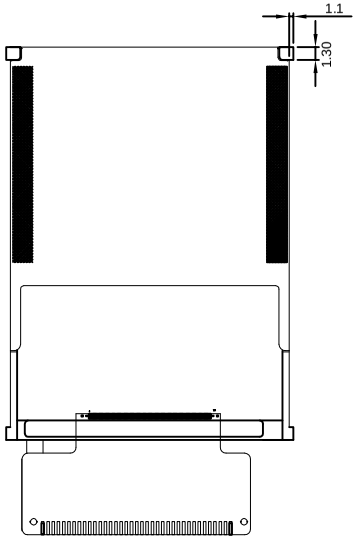
■ General Information

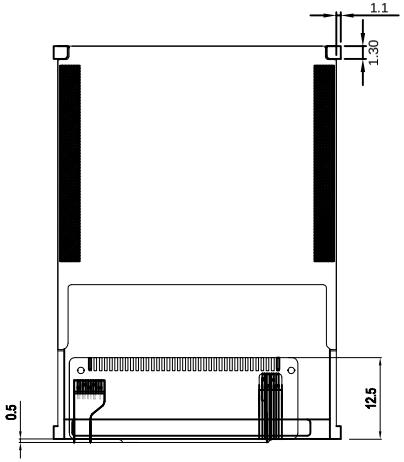
Item	Contents
LCD type	TFT transmissive
Viewing direction	6 O'Clock
Outline area(W*H)	42.30mm * 60.25mm*3.2（T）
Active area(W*H)	36.72mm * 48.96mm
Number of dots	240*RGB*320
Driver IC	ILI9341
Colors	262K
Interface type	System parallel interface
Input voltage	2.8V

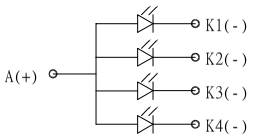
深圳市勋瑞光电科技有限公司

Xunrui Shenzhen Optoelectronics Technology Co., Ltd.









(CIRCUIT DIAGRAM)

接口定义

1	FMARK/NC
2	VCC
3	VCC
4	/CS
5	RS
6	/WR
7	/RD
8	/RESET
9	DB0
10	DB1
11	DB2
12	DB3
13	DB4
14	DB5
15	DB6
16	DB7
17	DB8
18	DB9
19	DB10
20	DB11
21	DB12
22	DB13
23	DB14
24	DB15
25	NC
26	Y- YD
27	X- XR
28	Y+ YU
29	X+ XL
30	LED-A
31	LED-1
32	LED-2
33	LED-3
34	LED-4
35	GND
36	GND
37	IM0

1. DISPLAY TYPE	TFT/TRANSMITIVE/POSITIVE
2. VIEWING DIRECTION	6 o'clock
3. DRIVER IC	ILI9341
4. Backlight VOLTAGE	3.2V
5. OPERATIVE VOLTAGE	2.8V
6. OPERATIVE TEMP.	-20° C TO 70° C
7. STORAGE TEMP.	-30° C TO 80° C
8. CONNECTOR	FPC

Approve

Checked

Drawn WHY

Approved

Dwg.No H024PA37TE04

Unmarked Tolerance	±0.2
Unit	mm
Scale	
Date	2013/06/10
Page	1/1
	1.0

■ Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit
Supply voltage for logic	IOVcc/Vcc	-0.3	3.6	V
Input voltage	Vin	-0.3	IOVcc+0.3	V
Operating temperature	Vop	-20	70	℃
Storage temperature	Tst	-30	80	℃
Humidity	RH		90%(Max 60℃)	RH

■ Electrical Characteristics

Parameter	Symbol	Min.	Type	Max.	Unit
Supply voltage for logic	Vcc-Vss	2.7	2.8	3.3	V
Supply voltage for I/O	IOVcc	2.7/1.7	2.8/1.8	3.3/1.9	V
Input Current	Idd	-	11.56	23.12	mA
Input voltage 'H' level	Vih	0.8IOVcc	-	IOVcc	V
Input voltage 'L' level	Vil	-0.3	-	0.2IOVcc	℃
Output voltage 'H' level	Voh	0.8IOVcc	-	-	℃
Output voltage 'L' level	Vol	-	-	0.2IOVcc	RH

■ Timing of Power Supply

Please refer to the driver IC specification.

■ Backlight Characteristics

Item	Symbol	Min.	Type	Max.	Unit	Condition
Forward voltage	Vf	3.10	3.15	3.2	V	If=60mA
Luminance	Lv	3200	3500	3800	Cd/㎡	Ta=25℃
Number of LED	-	4			Piece	-
Connection mode	P	0.8IOVcc	-	IOVcc	V	-

Interface Description

Pin NO.	Signal	I/O	Function
1	FMARK	O	Tearing effect output. Be used after writing data to RAM.
2	VCC	P	Power supply
3	VCC	P	Power supply
4	CS	I	Ground.
5	RS	I	- Register and Data select signal
6	WR	I	Write signal.
7	RD	I	Read signal.
8	RESET	I	Reset signal pin.
9	DB0	I/O	Data bus. When in 16bit mode, connected to GND .
10	DB1	I/O	Data bus. When in 16bit mode, connected to GND .
11	DB2	I/O	Data bus. When in 16bit mode, connected to GND .
12	DB3	I/O	Data bus. When in 16bit mode, connected to GND .
13	DB4	I/O	Data bus. When in 16bit mode, connected to GND .
14	DB5	I/O	Data bus. When in 16bit mode, connected to GND .
15	DB6	I/O	Data bus. When in 16bit mode, connected to GND .
16	DB7	I/O	Data bus. When in 16bit mode, connected to GND .
17	DB8	I/O	Data bus.
18	DB9	I/O	Data bus.
19	DB10	I/O	Data bus.
20	DB11	I/O	Data bus.
21	DB12	I/O	Data bus.
22	DB13	I/O	Data bus.
23	DB14	I/O	Data bus.
24	DB15	I/O	Data bus
25	NC		No connection
26	YD	-	TP signal
27	XR	-	TP signal
28	YU	-	TP signal
29	XL	-	TP signal
30	LEDA	P	LED ANODE
31	LEDK1	P	LED CATHODE
32	LEDK2	P	LED CATHODE
33	LEDK3	P	LED CATHODE
34	LEDK4	P	LED CATHODE
35	GND	G	Power GND
36	GND	G	Power GND
37	IM0	-	IM0=0: 16bit ; IM0=1: 8bit.

■ Reliability Test

Test item	Test Condition
High Temperature Storage	60±2℃/48 hours
Low Temperature Storage	-10±2℃/48 hours
High Temperature Operating	45±2℃/48 hours
Low Temperature Operating	0±2℃/48 hours
Temperature Cycle	0±2℃ ~50±2℃ × 10cycles (30min.) (5min.) (30min.)
Damp Proof Test	50℃±5℃×90%RH/48 hours
ESD test	Voltage:±4KV R: 330Ω C:150pF Air discharge, 10time