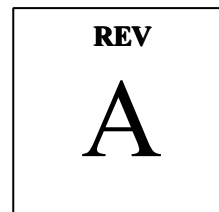


SPECIFICATION FOR LCD MODULE



Customer : _____

Product Model: **240A67-D**

Designed by	Checked by	Approved by
Liujingxiang		

Final Approval by Customer

OK

NG, Problem survey:

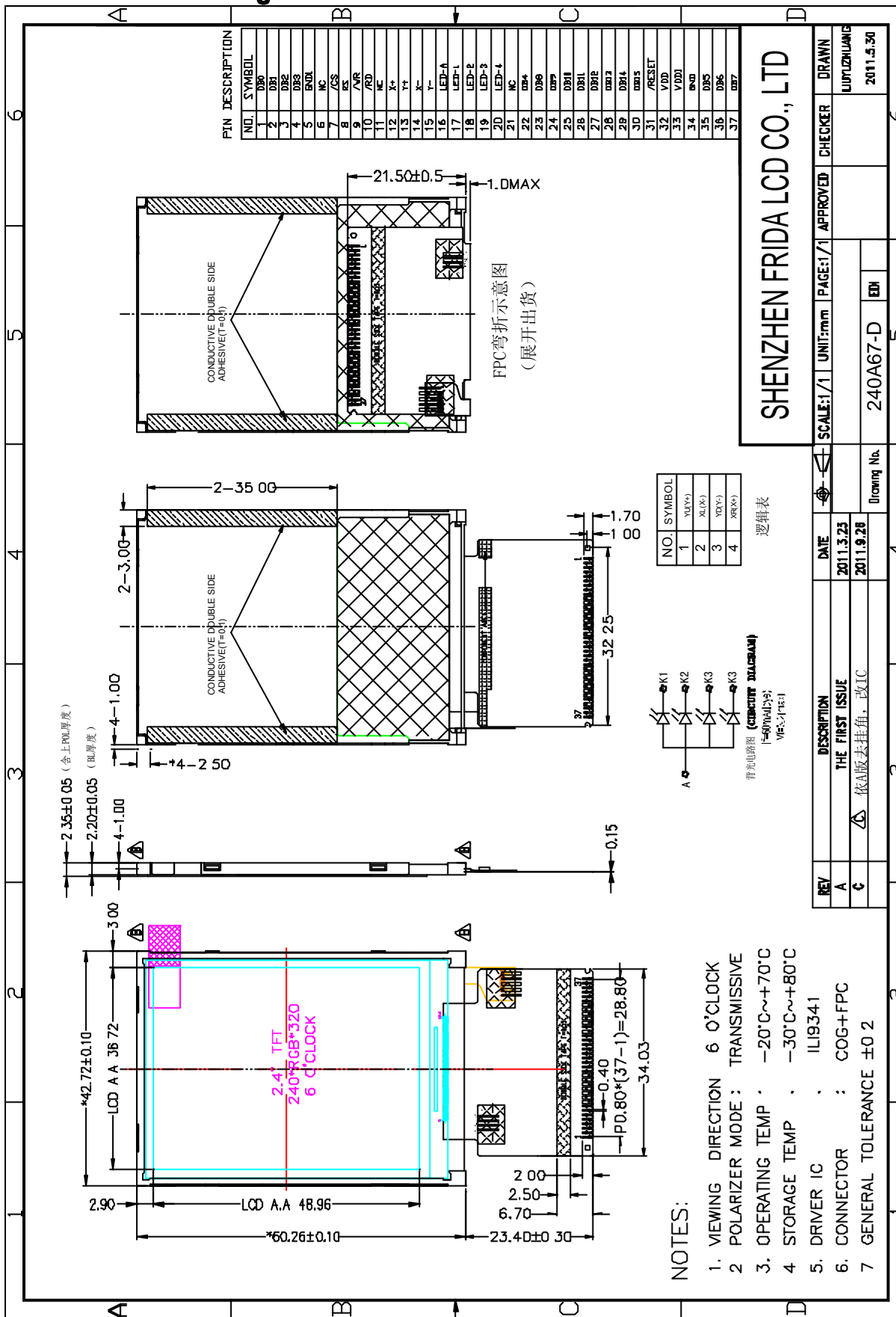
Approved By _____

Item	Contents	Unit	Note
LCD Type	TFT	-	
Display color	262K		1
LCD Duty	-	-	
LCD Bias	-	-	
Viewing Direction	6:00	O'Clock	
Viewing Area(W×H)	-	mm	
Active Area(W×H)	36.72 (H) ×48.96(V) mm	mm	
Number of Dots	240(H) X3(RGB) ×320(V) Dots	mm	
Dot Pitch(W×H)	0.153*0.153	mm	
Controller	ILI9341	-	
VDD	3	V	
Outline Dimensions	42.72(W)×60.26(H)×2.2(D)	mm	
Backlight	LED(white)	-	
Operating Temperature	-20~+70℃	-	
Storage Temperature	-30~+80℃	-	
Weight	TBD	g	2
Data Transfer	16bit	-	
Polarizer Mode	Transmissive/Negative	-	

Note 1: Color tune is slightly changed by temperature and driving voltage.

Note 2:TBD- To Be Determined.

2. Outline Drawing



3. Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Item	Symbol	Min.	Max.	Unit	Remark
Analog power supply	V_{CI}	-0.3	+4.6	V	
Logic input voltage	V_{DD}	-0.3	+4.6	V	
Operating temperature (Ambient)	T_{opr}	-20	+60	$^\circ\text{C}$	
Storage temperature (Ambient)	T_{stg}	-30	+70	$^\circ\text{C}$	

Note 1: If the module exceeds the absolute maximum ratings, it may be damaged permanently. Also, if the module operates with the absolute maximum ratings for a long time, the reliability may drop.

Note 2: All the measurements should be operated with driver IC and experimental FPC mounted.

4. Electrical Specifications and Instruction Code

4.1 Electrical characteristics ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Logic Power supply	VDD	$T_a=25^\circ\text{C}$	2.5	2.8	3.3	V	1
Input Voltage	H	V_{IH}	$0.8V_{DD}$	-	V_{DD}	V	
	L	V_{IL}	0	0	$0.2V_{DD}$	V	
Output Voltage	H	V_{OH}	$I_{OH} = -1.0\text{mA}$	$0.8V_{DD}$	-	-	V
	L	V_{OL}	$I_{OL} = +1.0\text{mA}$	-	-	$0.2V_{DD}$	V
Current Consumption	I_{CC1}	Normal mode	18		23	mA	2
	I_{CC2}	Stand-by mode	-	-	-	mA	

Note 1: The operations are guaranteed under the recommended operating conditions only. These operations are not guaranteed if a quick voltage change occurs during operation. To prevent noise, a bypass capacitor must be inserted into the line close to the power pin.

Note 2: All the measurements should be operated with driver IC and experimental FPC.

4.2 LED backlight specification

Item	Symbol	Condition	Min	Typ	Max	Unit	Note
Forward voltage	V_f	$I_f=15\text{mA}$	3.0	3.2	3.4	V	
Reverse voltage	V_r					V	
Forward current	Normal	I_{pn}	4-chip	60		mA	
	Dimming	I_{pd}					
Reverse Current	I_r	$V_r=4\text{V}$			15	μA	
Uniformity		$I_f=15\text{mA}$	80%	85%			

4.3 Interface Signals

Pin No.	Symbol	I/O	Function
1-4	DB0-DB3		Data Bit
5	GND1		Ground
6	NC		No connection
7	/CS		Chip select input pin
8	RS		Register select signal pin. L: Command H: Data
9	/WR		Write execution control pin
10	/RD		Read execution control pin
11	NC		No connection
12	X+		Touch panel output pin
13	Y+		Touch panel output pin
14	X-		Touch panel output pin
15	Y-		Touch panel output pin
16	LED-A		LED Positive
17	LED-1		LED Negative
18	LED-2		LED Negative
19	LED-3		LED Negative
20	LED-4		LED Negative
21	NC		No connection
22	DB4		Data Bit
23-30	DB8-DB15		Data Bit
31	/RESET		System Reset Pin
32	VDD		Power Supply
33	VDDI		Power Supply
34	GND		Ground
35	DB5		Data Bit
36	DB6		Data Bit
37	DB7		Data Bit

5. Reliability

No.	Test Item	Test condition	Criterion
1	High Temperature Storage	80°C±2°C 96H Restore 4H at 25°C	1. After testing, cosmetic defects should not happen. 2. Total current consumption should not be over 10% of initial value.
2	Low Temperature Storage	-30°C±2°C 96H Restore 4H at 25°C	
3	High Temperature Operation	70°C±2°C 48H Restore 4H at 25°C	
4	Low Temperature Operation	-20°C±2°C 48H Restore 4H at 25°C	
5	High Temperature /Humidity Storage	40°C±2°C 90%RH 48H	
6	Temperature Cycle	$-30^{\circ}\text{C} \longleftrightarrow 25^{\circ}\text{C} \longleftrightarrow 80^{\circ}\text{C}$ 5min 30min $\longleftrightarrow 25^{\circ}\text{C}$, 5min after 10cycle, Restore 4H at 25°C	
7	Vibration Test (package state)	10Hz~150Hz, 100m/s ² , 120min	Not allowed cosmetic and electrical defects.
8	Shock Test (package state)	Half- sine wave, 300m/s ² , 18ms	
9	Atmospheric Pressure Test	25kPa 16H Restore 2H	

6. Precautions for Use of LCD Modules

6.1 Handling Precautions

6.1.1 The display panel is made of glass. Do not subject it to a mechanical shock by dropping it from a high place, etc.

6.1.2 If the display panel is damaged and the liquid crystal substance inside it leaks out, be sure not to get any in your mouth, if the substance comes into contact with your skin or clothes, promptly wash it off using soap and water.

6.1.3 Do not apply excessive force to the display surface or the adjoining areas since this may cause the color tone to vary.

6.1.4 The polarizer covering the display surface of the LCD module is soft and easily scratched.

