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## LCD MODULE SPECIFICAION

Customer: \_\_\_\_\_

ModelName: **FT2425JPY-24P**

Date: 2015-01-08

Version: 1.0

Approved by	Reviewed by	Prepared by

For Customer's Acceptance

Approved by	Comment

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## 1.GeneralSpecifications

No.	Item	Specification	Unit	Remark
1	LCDSIZE	2.4"	inch	-
2	Panel Type	a-siTFT	-	-
3	Resolution	240x(RGB)x320	pixel	-
4	Display Mode	Normallywhite,Transmissive	-	-
5	DisplayNumberofColors	262K	-	-
6	ViewingDirection	12o'clock	-	Note1
7	ContrastRatio	300	-	-
8	Luminance	180	cd/m <sup>2</sup>	
9	ModuleSize	42.72(W)x60.26(L)x2.4 (T)	mm	Note1
12	Weight	TBD	g	-
13	DriverIC	ST7789V	-	-
14	DriverIC RAMSize	240x16x320	bit	-
15	Light Source	4WhiteLEDsinParallel	-	-
16	Interface	80-system 8bitsParallel Bus	-	-
17	OperatingTemperature	-20~70	°C	-
18	StorageTemperature	-30~80	°C	-

Note1: Pleaserefer tothemechanical drawing.



### 3. Electrical Specifications

#### 3.1. Absolute Maximum Rating

(T<sub>a</sub>=+25°C)

Item	Symbol	Values		Unit	Remark	
		Min.	Max.			
TFT Module	I/O Circuit Supply Voltage	VDD	-0.3	4.6	V	Note1
	Analog/Logic Supply Voltage	VCI	-0.3	4.6	V	Note1
Backlight Unit	Current	I <sub>B</sub>	-	120	mA	Note2
	Power Consumption	P <sub>BL</sub>	-	480	mW	Note2

Note1: Permanent damage to the device may occur if maximum values are exceeded or reverse voltage is applied.

Note2: Without LED driver IC, please refer to 2.4.

## 3.2. Typical Operation Conditions

## 3.2.1 DC Characteristics

(T<sub>a</sub>=+25°C, V<sub>CI</sub>=+2.8V)

Item	Symbol	Values			Unit	Remark
		Min.	Typ.	Max.		
Logic Supply Voltage	VDD	2.6	2.8	3.3	V	Ta=25°C
Analog Supply Voltage	VCI	2.6	2.8	3.3	V	
Input High Voltage	V <sub>IH</sub>	0.7VDD	-	VDD	V	
Input Low Voltage	V <sub>IL</sub>	0		0.3VDD	V	
Output High Voltage	V <sub>OH</sub>	0.8VDD	-	VDD	V	
Output Low Voltage	V <sub>OL</sub>	0	-	0.2VDD	V	
Frame Frequency	f <sub>FRAME</sub>	-	65	-	Hz	

Note: To prevent IC latch up or DC operation in LCD panel, the power on/off sequence should follow the driver IC specification.

## 3.2.2 Current Consumption

Item	Symbol	Values		Unit	Remark
		Typ.	Max.		
MCU Interface (8080 16-bit parallel interface)					
Still Mode	VDD	-	TBD	uA	Note1
	VCI	-	TBD	mA	
Sleep Mode	VDD	-	TBD	uA	Note1, Note3
	VCI	-	TBD	uA	

Note1: Test Condition

Typ: VDD=2.8V

VCI=2.8V

Display Pattern: 8 Color Bar

Frame Rate=80Hz at Line Inversion

Operating Temperature: 25°C

Typ. current check pattern:

Max: VDD=3.0V

VCI=3.3V

Display Pattern: All Pixel Black

Frame Rate=80Hz at Line Inversion

Operating Temperature: 25°C

Max. current check pattern:

### 3.3.BacklightUnit

Thebacklightsystemisanedgelightingtypewith4whiteLEDs.

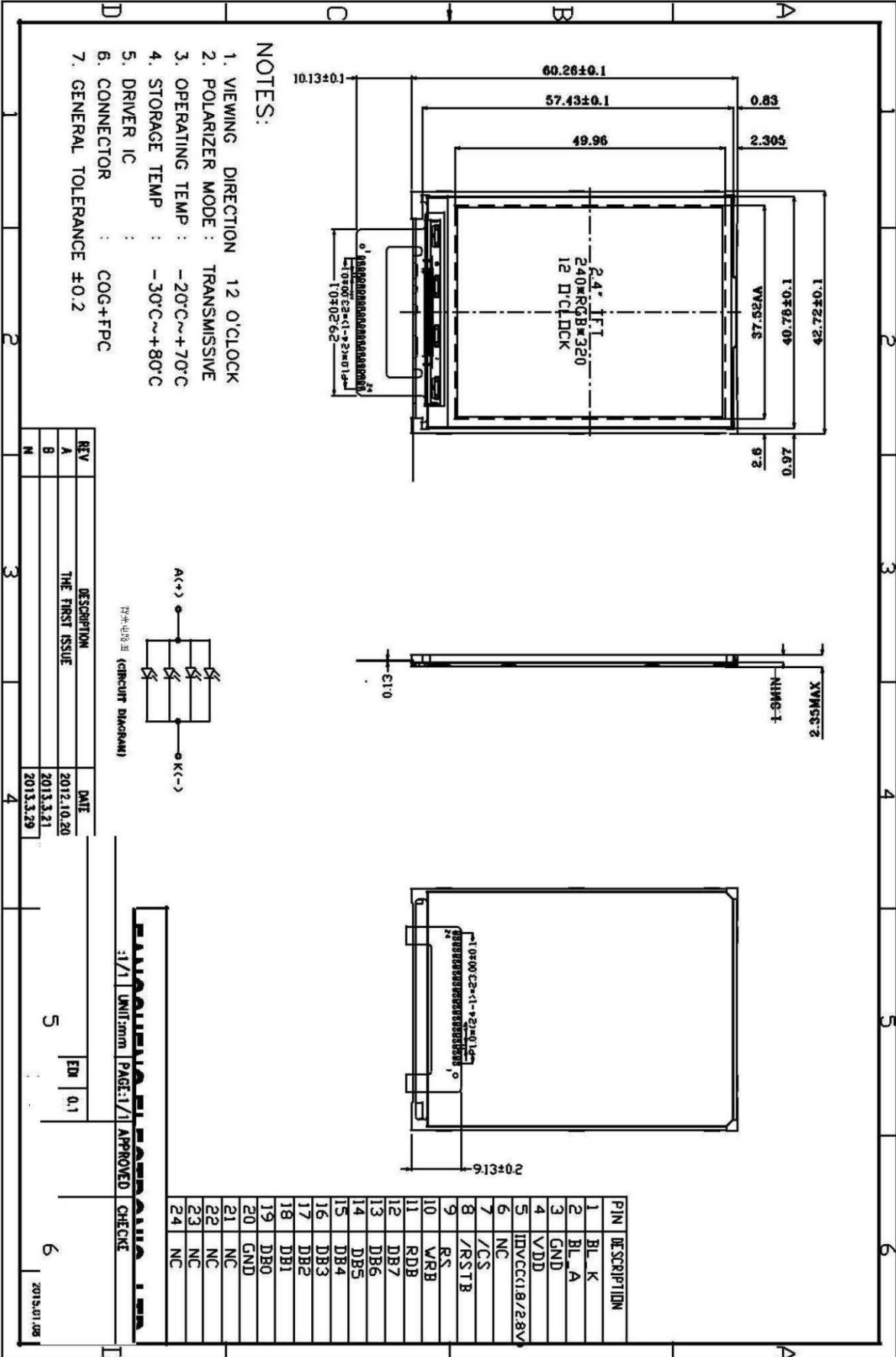
( $T_a=+25^{\circ}\text{C}$ )

Item	Symbol	Values			Unit	Remark
		Min.	Typ.	Max.		
Current	$I_B$	-	80	-	mA	Note1
PowerConsumption	$P_{BL}$	-	120	-	mW	Note2

Note1:4LEDsare connectedinparallel;eachLED'scurrentconsumptionis20mA.

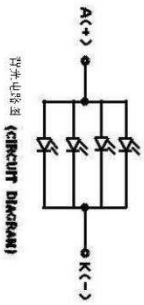
Note2:Where $I_B=120\text{mA}$ , $P_{BL}= I_B \times V_{BL}$ . $V_{BL}$ is backlightforwardvoltage.

# 4.MechanicalDrawing



**NOTES:**

1. VIEWING DIRECTION : 12 O'CLOCK
2. POLARIZER MODE : TRANSMISSIVE
3. OPERATING TEMP : -20°C~+70°C
4. STORAGE TEMP : -30°C~+80°C
5. DRIVER IC :
6. CONNECTOR : COG+FPC
7. GENERAL TOLERANCE : ±0.2



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