SPECIFICATION FOR
TFT LCD MODULE

MODEL NO:

CUSTOMER:

Customer Approval:

□ **Approve Specification Only**

□ **Approve Specification and Sample**

APPROVED BY
DATE:

PREPARED BY	CHECKED BY	APPROVED BY

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RECORDS OF REVISION

DATE	REF.PAGE PARAGRAPH DRAWING No.	REVISED No.	SUMMARY	REMARK
2014-4-4	ALL	A	FIRST ISSUE	

1. Introduction

1.1 Scope of application

This specification applies to the Negative type TFT transmissive dot matrix LCD module that is supplied by **SHENZHEN HANYUMODERN ELECTRONICS CO.,LTD.** This LCD module should be designed for mobile phone use.LCD specification: 6:00， Dots 240xRGBx320.As to basic specification of the driver IC, refer to the IC (ILI9341V) specification and datasheet.

1.2 Structure:

Double display structure:
TFT Module + FPC + BL
FULL 262k Color 2.4 inch TFT LCD size for main LCD;
One bare chip with gold bump (COG) TECH;

1.3 TFT features:

Structure: TFT PANNEL+IC+FPC+TP;
Transmissive Type LCD
240 dot-source and 320 dot-gate outputs;
262k Color;
White LED back light;

1.4 Applications:

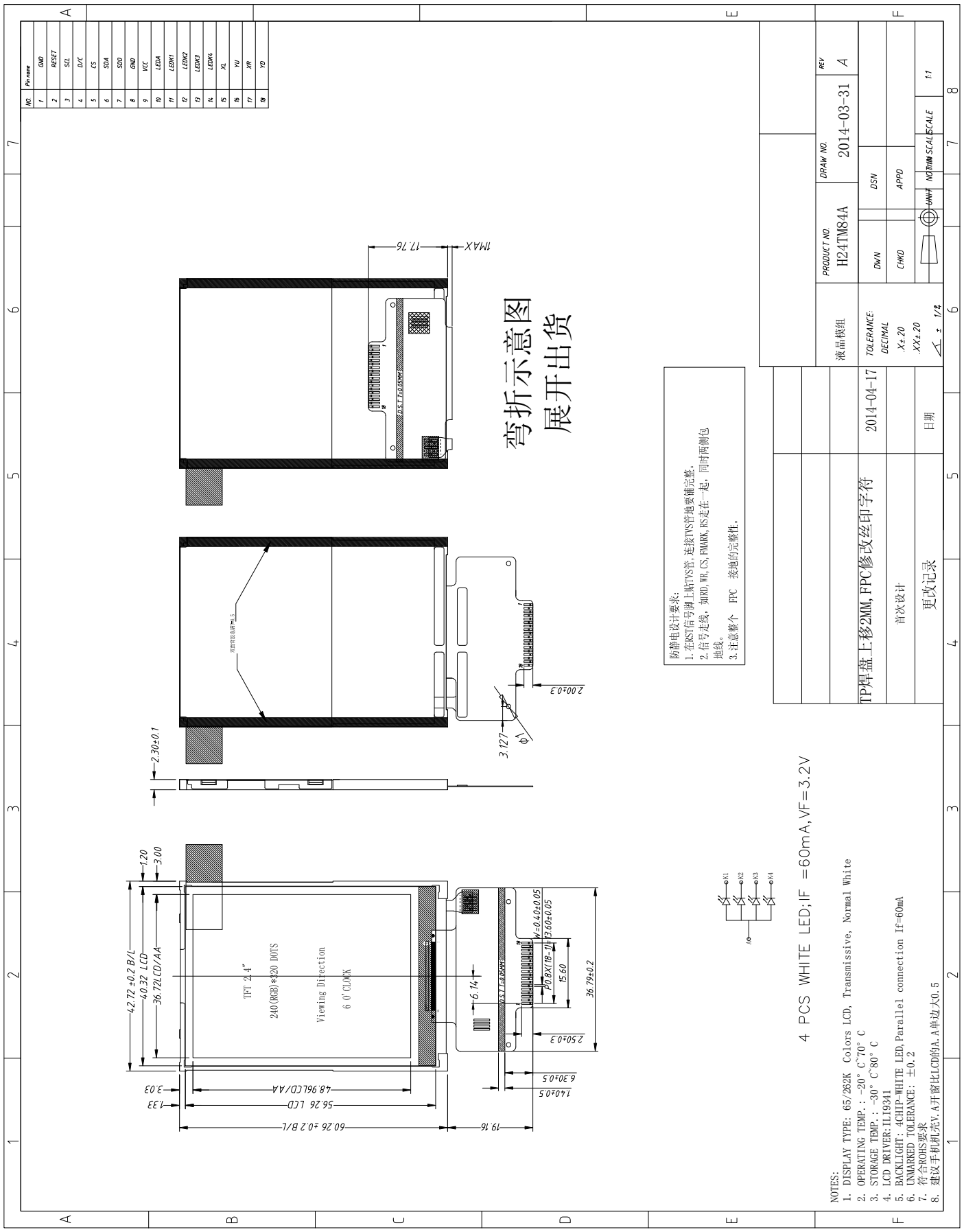
Mobile phone, Mp4

1.5 This module uses ROHS material

2. General specification

ITEM	Standard value	UNIT
LCD Type	TFT Negative Transmissive	---
Driver element	a-Si TFT Active matrix	
Number of Dots	240*(RGB)*320	Dots
Pixel Arrangement	RGB Vertical Stripe	
Pixel Pitch (W*H)	0.153(W)*0.153(H)um	um
Display Area	36.72(W) ×48.96(H) mm	mm
Viewing Direction	6 O'clock	
Driver IC	ILI9341V	
Module Size(W*H*T)	42.72(W) ×60.26 (H)×2.30(T)	mm
Approx. Weight	TBD	g
Back Light	White LED	
Touch Panel Type	-	

3. Mechanical drawing



4. ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Min	Max	Unit
Supply voltage for logic	V_{DD}	-0.3	3.0	V
Input voltage for logic	V_{IN}	-0.5	V_{DD} +0.3	V
Supply current (One LED)	I_{LED}		20	mA
Operating temperature	T_{OP}	-20	+70	°C
Storage temperature	T_{ST}	-30	+80	°C

5. ELECTRICAL CHARACTERISTICS

Item	Symbol	Min	Typ	Max	Unit	Applicable terminal
Supply voltage for logic	V_{DD}	2.6	2.8	3.0	V	V_{DD}
Input voltage	V_{IL}	-0.3	-	0.2 V_{DD}	V	
	V_{IH}	0.8 V_{DD}	-	V_{DD}	V	
Input leakage current	I_{LKG}				μA	
LED Forward voltage	V_f	3.0	3.2	3.3	V	--
Input backlight current	I_{LED}	-	60	--	mA	With One LED

6. OPTICAL CHARACTERISTICS

ITEM		SYMBOL	CONDITIONS	SPECIFICATIONS MIN.	SPECIFICATIONS TYP.	SPECIFICATIONS MAX	UNIT	NOTE
Brightness		B	Viewing normal angle	--	150	--	Cd/m^2	All left side data are based on LEAD's product reference only
Contrast Ratio		CR		100	120	--	--	
Response Time		Tr+Tf		--	25	40	ms	
CIE Color coordinate	Red	X_R		--	0.571			
		Y_R			0.352			
	Green	X_G		--	0.345			
		Y_G			0.557			
	Blue	X_B		--	0.148			
		Y_B			0.128			
	White	X_W		--	0.314			
		Y_W			0.334			
Viewing Angle	Hor.	θ_{X+}	Center CR>=10	40	45	--	Deg.	
		θ_{X-}		40	45	--		
	Ver.	θ_{Y+}		30	35	--		
		θ_{Y-}		10	15			
Uniformity	Un			80	85		%	

7. MCU Interface Pin Function

NO.	SYMBOL	Description	I/O
1	GND	GND	Power supply
2	/RESET	Reset signal	I
3	SCL	serial interface clock	I
4	RS	Data/Commander selection	I
5	CS/	Chip select signal (Low: active)	I
6	SDA	Serial input signal	I
7	SDO	Serial output signal	O
8	GND	GND	Power supply
9	VDD	Analog supply power	Power supply
10	LEDA	LED anode	
11-14	K1- K4	LED cathode	
15	XL	Touch screen terminal	I
16	YU	Touch screen terminal	I
17	XR	Touch screen terminal	I
18	YD	Touch screen terminal	I