Next Vision Display
Brighten The Future

NEXT VISION DISPLAY

SPECIFICATION

CUSTOMER : _____

MODULE NO.: NT034RC002ML

Version	02
Engineer	2025-01-19
Date	

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Customer:
Approved by

NEXT VISION DISPLAY CO., LTD.

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Scope

This specification defines general provisions as well as inspection standards for TFT module supplied by Next Vision Display Co.,LTD.

If the event of unforeseen problem or unspecified items may occur, naturally shall negotiate and agree to solution.

General Specifications

LCD Parameter

Item	Contents	Unit	Note
LCD Type	TFT	-	
Display color	16.7M		
Viewing Direction	ALL	O'Clock	
Operating temperature	-20~+70	℃	
Storage temperature	-30~+80	℃	
Module size	3.4	inch	
Active Area(W×H)	87.60x87.60	mm	
Number of Dots	800x800	dots	
TFT Controller	ILI9881C	-	
Power Supply Voltage	3.3	V	
Outline Dimensions	120.50x120.50x6.23	mm	
Backlight	4X2-LEDs (white)	pcs	
Weight	---	g	
Interface	MIPI	-	

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

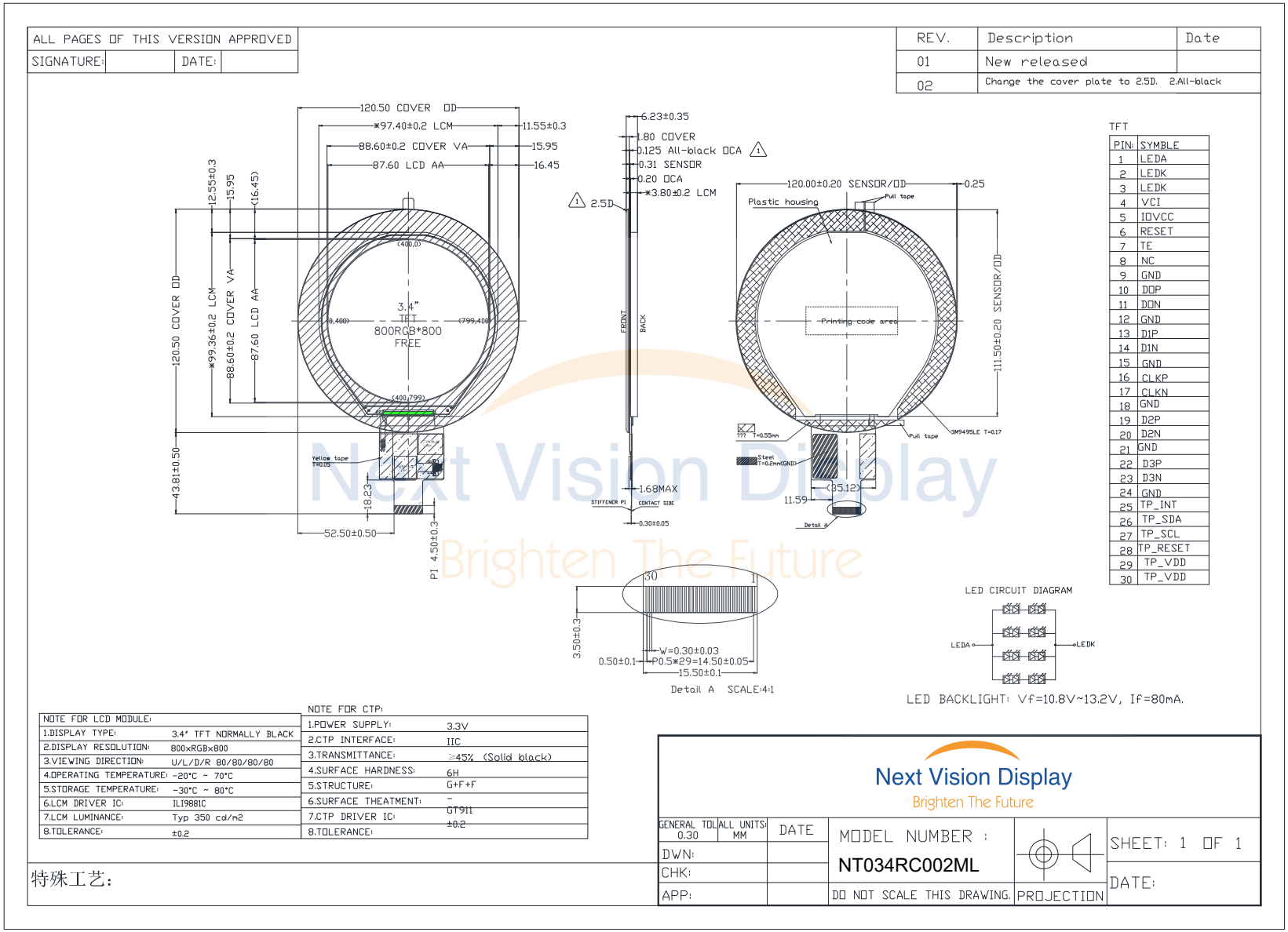
Note 2: Without FPC and Solder.

CTP Parameter

Item	Contents	Unit	Note
Cover View Area	88.6(H)X88.6(V)	mm	
CTP Resolution	800X800	dots	
Interface Mode	IIC	-	
Touch Mode	5Human fingers multi-touch	-	
Surface hardness	>=6H	-	
Transparency	>=85%	-	
Accuracy	Centre +/-1.5,Edge +/-2.5mm	mm	
CTP Controller	GT911	-	
Power Supply Voltage	3.3	V	

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Outline Drawing



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Interface Description

LCD interface

Pin No.	Symbol	I/O	Function	Note
1	LEDA	P	LED back light(Anode).	
2-3	LEDK	P	LED back light(Cathode).	
4	VCI	P	Analog Power supply.	
5	IOVCC	P	Digital Power supply.	
6	RESET	I	Reset pin, Active Low.	
7	TE	O	Tearing effect output pin.	
8	NC	-	No connect.	
9	GND	P	Ground.	
10	D0P	I	MIPI differential data0+ input.	
11	D0N	I	MIPI differential data0- input..	
12	GND	P	Ground.	
13	D1P	I	MIPI differential data1+ input.	
14	D1N	I	MIPI differential data1- input.	
15	GND	P	Ground.	
16	CLKP	I	MIPI CLOCK+differential signal input .	
17	CLKN	I	MIPI CLOCK- differential signal input.	
18	GND	P	Ground.	
19	D2P	I	MIPI differential data2+ input.	
20	D2N	I	MIPI differential data2- input.	
21	GND	P	Ground.	
22	D3P	I	MIPI differential data3+ input.	
23	D3N	I	MIPI differential data3-input.	
24	GND	P	Ground.	
25	TP_INT	I	External Interrupt to the IC of CTP.	
26	TP_SDA	I/O	CTP Serial in/out signal pin.	
27	TP_SCL	I	CTP Serial interface clock pin.	
28	TP_RESET	I	CTP Reset pin.	
29-30	TP_VDD	P	CTP Analog or digital supply voltage.	

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Absolute Maximum Ratings(Ta=25℃)

Electrical Absolute Maximum Ratings.(Vss=0V ,Ta=25℃)

Item	Symbol	Min.	Max.	Unit	Note
Power Supply Voltage	VCI	-0.3	6.5	V	1，2
	IOVCC	-0.3	3.3		
CTP Power Supply Voltage	VDD	-0.3	3.47		

Notes:

1. If the module is above these absolute maximum ratings. It may become permanently damaged. Using the module within the following electrical characteristic conditions are also exceeded, the module will malfunction and cause poor reliability.
2. V_{DD} >V_{SS} must be maintained.

Environmental Absolute Maximum Ratings.

Item	Storage		Operating		Note
	MIN.	MAX.	MIN.	MAX.	
Ambient Temperature	-30℃	80℃	-20℃	70℃	1,2
Humidity	-	-	-	-	3

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1. The response time will become lower when operated at low temperature.
2. Background color changes slightly depending on ambient temperature.

   The phenomenon is reversible.
3. Ta<=40℃:85%RH MAX.

   Ta>=40℃:Absolute humidity must be lower than the humidity of 85%RH at 40℃.

Electrical Specifications and Instruction Code

Electrical characteristics(Vss=0V ,Ta=25℃)

Parameter		Symbol	Condition	Min	Typ	Max	Unit	Note
TFT Power supply		VCI	Ta=25℃	2.5	2.8	4.0	V	-
		IOVCC		1.75	2.8	3.3	V	-
CTP Power supply		VDD	Ta=25℃	2.7	3.3	3.4	V	-
Input voltage	'H'	V_{IH}	Ta=25℃	0.7_{IOVCC}	-	IOVCC	V	-
	'L'	V_{IL}		0	-	0.3_{IOVCC}	V	-

Note:

1:When an optimum contrast is obtained in transmissive mode.

2: Tested in 1╳1 chessboard pattern.

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Optical Characteristics

Item	Symbol		Condition	Min.	Typ.	Max.	Unit	Note
Brightness	Bp		If=120mA	-	350	-	Cd/m^2	1
Uniformity	⊿Bp			80	-	-	%	1,2
Viewing Angle	3:00		Cr≥10	-	80	-	Deg	1,2
	6:00			-	80	-		
	9:00			-	80	-		
	12:00			-	80	-		
Contrast Ratio	Cr		θ=0° Φ=0°	1000	1200	-	-	3,4
Response Time	T_r+T_f			-	30	35	ms	4,5
Color of CIE Coordinate	W	x	θ=0° Φ=0°	Typ-0.05	TBD	Typ+0.05	-	1,6
		y			TBD		-	
	R	x			TBD		-	
		y			TBD		-	
	G	x			TBD		-	
		y			TBD		-	
	B	x			TBD		-	
		y			TBD		-	
NTSC Ratio	S			-	70	-	%	

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*The parameter is slightly changed by temperature, driving voltage and materiel

Note 1: The data are measured after LEDs are turned on for 5 minutes. LCM displays full white. The brightness is the average value of 9 measured spots. Measurement equipment CA310 Measuring condition:-Measuring surroundings: Dark room.-Measuring temperature: Ta=25℃.-Adjust operating voltage to get optimum contrast at the center of the display.

The measured value is more than 5 minutes at the center point of the LCD panel, and the backlight is turned on at the same time.