Next Vision Display
Brighten The Future

NEXT VISION DISPLAY

SPECIFICATION

CUSTOMER : _____

MODULE NO.: NT034RC001ML

Version	1.0
Engineer	
Date	2018.7.16

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Customer:
Approved by

NEXT VISION DISPLAY CO., LTD.

地址: 中國上海小木橋路600號
ADD: 600 XIAO MU QIAO ROAD, SHANGHAI, CHINA

WEB: www.nextvisiondisplay.com

TECHNICAL: technical@nextvisiondisplay.com
MARKETING: marketing@nextvisiondisplay.com
SALES: sales@nextvisiondisplay.com

Represented by:

first FC components
FIRST Components s.r.l.
www.first-components.com
sales@first-components.com
+39 0332 1888005

General Specifications

Feature		Spec
Display Spec.	Size	3.4 inch
	Resolution	800(RGB) x 800
	Technology Type	a-Si
	Pixel Configuration	R.G.B. Vertical Stripe
	Pixel pitch(um)	109.5*109.5
	Display Mode	SFT
	Surface Treatment	HC
	Viewing Direction	FREE
Mechanical Characteristics	Module (W x H x D) (mm) with CTP	99.0 x 96.6 x 3.98
	Active Area(mm)	87.6*87.6
	With /Without TSP	With CTP
	Matching Connection Type	FPC
	LED Numbers	8 LEDs
	CTP Surface hardness	≥7H
	Weight (g)	TBD
Electrical Characteristics	Interface	MIPI 3 lane
	Color Depth	16.7M
	LCD Driver IC	ILI9881C
	CTP Driver IC	HX8526-E30
	CTP Interface	IIC

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Note 1: Viewing direction for best image quality is different from TFT definition. There is a 180 degree shift.

Note 2: Requirements on Environmental Protection: Q/S0002

Note 3: LCM weight tolerance: ± 5%

Input/Output Terminals

LCD Interface

Pin No.	Symbol	I/O	Function	Remark
1	GND	GND	Power Ground	
2	LEDA	P	LED Anode	
3	LEDA	P		
4	LEDK	P	LED Cathode	
5	LEDK	P		
6	GND	GND	Power Ground	
7	VDD(-5V)	P	-5V INPUT	
8	VDD(-5V)	P		
9	GND	GND	Power Ground	
10	VDD(+5V)	P	+5V INPUT	
11	VDD(+5V)	P		
12	GND	GND	Power Ground	
13	IOVCC	P	Power supply 1.8V	
14	IOVCC	P		
15	GND	GND	Power Ground	
16	RESET	I	Global Reset Pin	
17	GND	GND	Power Ground	
18	TE	I	tearing effect output	
19	GND	GND	Power Ground	
20	NC	N	No connect	
21	NC	N		
22	NC	N		
23	GND	GND	Power Ground	
24	LAN2_P	I	MIPI lane 2+	
25	NC	N	No connect	
26	LAN2_N	I	MIPI lane 2-	
27	GND	GND	Power Ground	
28	CLK_P	I	MIPI clock +	
29	NC	N	No connect	

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30	CLK_N	I	IMIPI clock -	
31	GND	GND	Power Ground	
32	LAN1_P	I	MIPI lane 1+	
33	NC	N	No connect	
34	LAN1_N	I	MIPI lane 1-	
35	GND	GND	Power Ground	
36	LAN0_P	I	MIPI lane 0+	
37	NC	N	No connect	
38	LAN0_N	I	MIPI lane 0-	
39	GND	GND	Power Ground	

CTP Interface

Pin	Name
1	VCCA(2.8V)
2	VCCD(1.8V)
3	SCL
4	SDA
5	GND
6	GND
7	TSIX
8	NC
9	NC
10	XRES

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Absolute Maximum Ratings

GND=0V

Item	Symbol	MIN	MAX	Unit	Remark
Power Supply Voltage	IOVCC	-0.3	3.3	V	Note1
Power Supply Voltage	VDD(+5V)	-0.3	6.5		
Power Supply Voltage	VDD(-5V)	-6.5	0.3		
Logic Supply Voltage	VCCIO	-0.3	3.3	V	
Operating Temperature	Top	-20	70	℃	
Storage Temperature	Tst	-30	80	℃	
Relative Humidity Note2	RH	--	≤95	%	Ta≤40℃
		--	≤85	%	40℃＜Ta≤50℃
		--	≤55	%	50℃＜Ta≤60℃
		--	≤36	%	60℃＜Ta≤70℃
		--	≤24	%	70℃＜Ta≤80℃
Absolute Humidity	AH	--	≤70	g/m³	Ta＞70℃

Table 3 Absolute Maximum Ratings

Note1: Input voltage include R0~R5, G0~G5, B0~B5, Dotclk, Hsync, Vsync, Enable, R/L, U/D.

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Electrical Characteristics

LCD characteristics

GND=0V,Ta=25℃

Item		Symbol	MIN	TYP	MAX	Unit	Remark
Power Supply Voltage		IOVCC	1.75	1.8	3.3	V	
Power Supply Voltage		VDD(+5V)	4.5	5.0	6	V	
Power Supply Voltage		VDD(-5V)	-6	-5.0	-4.5		
Input Signal Voltage	High Level	VIH	0.7*IOVCC	-	IOVCC	V	
	Low Level	VIL	0	-	0.3*IOVCC	V	

Table 4.1 LCD module electrical characteristics

Optical Characteristics
Driving the backlight condition

Item		Symbol	Condition	Min	Typ	Max	Unit	Remark
View Angles		θT	CR≧10	70	80	--	Degree	Note2
		θB		70	80	--		
		θL		70	80	--		
		θR		70	80	--		
Contrast Ratio		CR	θ=0°	600	800	--		Note 3
Response Time		T_{ON}	25℃	--	25	35	ms	Note 4
		T_{OFF}						
Chromaticity	**White**	x	Backlight is on	0.263	0.313	0.363		Note 1,5
		y		0.279	0.329	0.379		
	Red	x		--	TBD	--		Note 1,5
		y		--	TBD	--		
	Green	x		--	TBD	--		Note 1,5
		y		--	TBD	--		
	Blue	x		--	TBD	--		Note 1,5
		y		--	TBD	--		
Uniformity		U		75	80	--	%	Note 6
NTSC				65	70	--	%	Note 5
Luminance		L		280	350	--	cd/m^2	Note 7

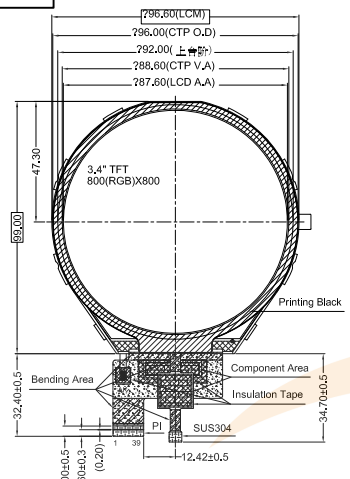
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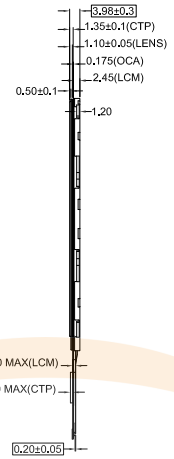
Test Conditions:

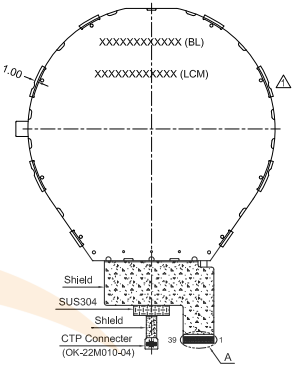
1. I_F= 20 mA(one LED), and the ambient temperature is 25℃.
2. The test systems refer to Note 1 and Note 2.

Mechanical Drawing

ALL PAGES OF THIS VERSION APPROVED			
SIGNATURE:		DATE:	





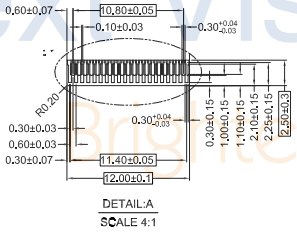


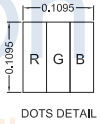
CTP

PIN	NAME
1	VCCA(2.8V)
2	VCCD(1.8V)
3	SCL
4	SDA
5	GND
6	GND
7	TSIX
8	NC
9	NC
10	XRES

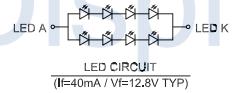
LCM

No.	Symbol
1	GND
2	LEDA
3	LEDA
4	LEDK
5	LEDK
6	GND
7	VDD(-5V)
8	VDD(-5V)
9	GND
10	VDD(+5V)
11	VDD(+5V)
12	GND
13	IOVCC(1.8V)
14	IOVCC(1.8V)
15	GND
16	RESET
17	GND
18	TE
19	GND
20	NC
21	NC
22	NC
23	GND
24	LAN2_P
25	NC
26	LAN2_N
27	GND
28	CLK_P
29	NC
30	CLK_N
31	GND
32	LAN1_P
33	NC
34	LAN1_N
35	GND
36	LAN0_P
37	NC
38	LAN0_N
39	GND





DOTS DETAIL



LED CIRCUIT
(If=40mA / Vf=12.8V TYP)

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NOTES:

1. DISPLAY TYPE: 3.4"TFT_LCD/TRANSMISSIVE
2. OPERATING TEMPERATURE: −20°C~70°C
3. STORAGE TEMPERATURE: −30°C~80°C
4. VIEWING ANGLE: ALL
5. BACKLIGHT BRIGHTNESS: 350CD/M2
6. DRIVER: LCD:ILI9881C/CTP:HX8526
7. RESOLUTION: 800(RGB)X800
8. CONNECTOR: FPC
9. UNMARK TOLERANCES: ±0.03MM

GENERAL TOL 0.30	ALL UNITS: MM	DATE	MODEL NUMBER : NT034RC001ML		SHEET: 1 OF 1
DWN:					
CHK:					DATE:
APP:			DO NOT SCALE THIS DRAWING.	PROJECTION	