Next Vision Display
Brighten The Future

NEXT VISION DISPLAY

SPECIFICATION

CUSTOMER : _____

MODULE NO.: NT057-R002JD

Version	V0
Engineer	
Date	2024-07-18

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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

Scope

This specification defines general provisions as well as inspection standards for TFT module supplied by Next Vision electronics.

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

General Information

LCM

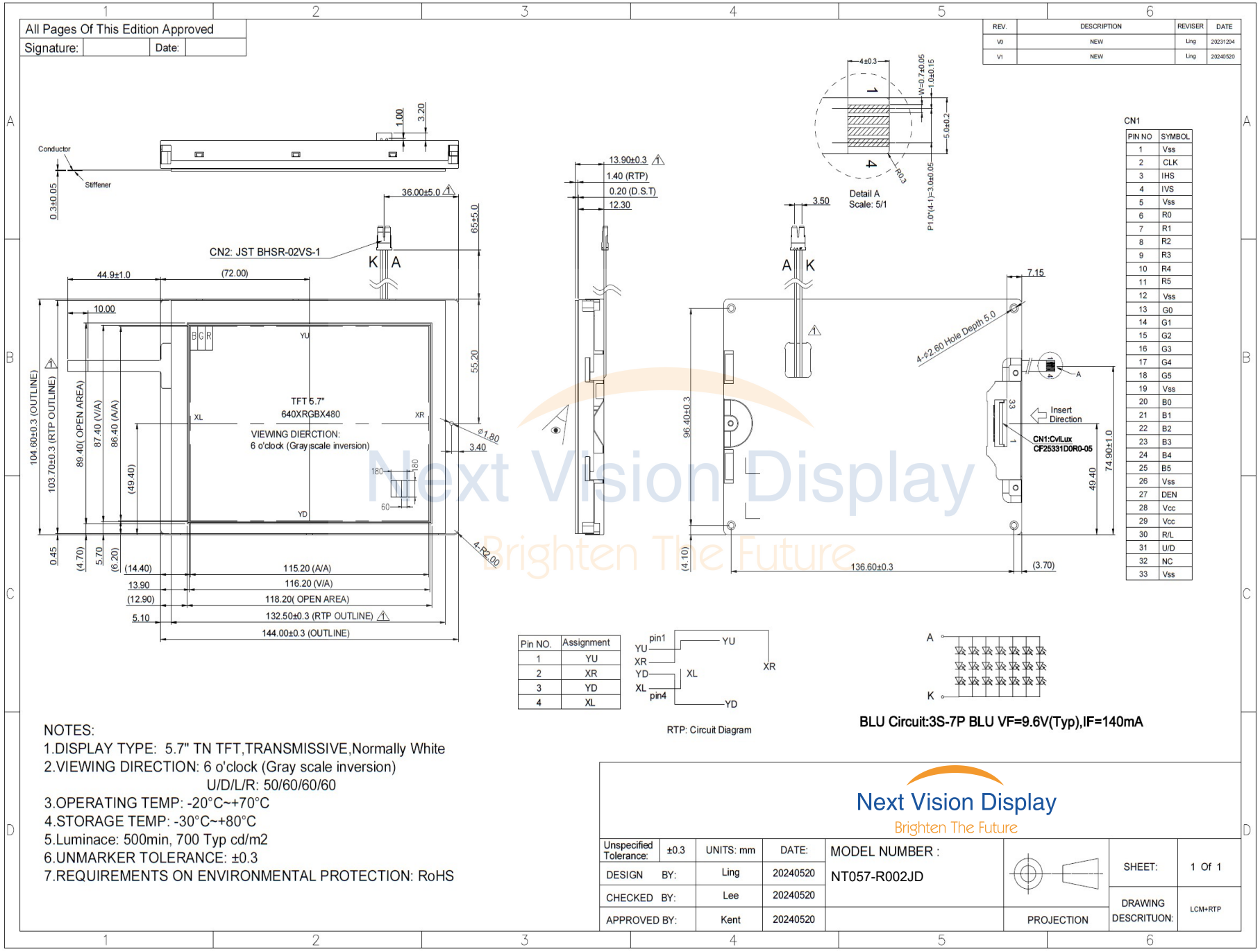
Item	Standard Values	Unit
LCD type	5.7" TFT	
Dot arrangement	640×R.G.B.×480	dots
Color filter array	RGB vertical stripe	
Display mode	Normally white	
Gray Scale Inversion Direction	6 O'clock	
Eyes Viewing Direction	12 O'clock	
Module size	144.0(W)×104.6(H)×13.9(T)	mm
Active area	115.2(W)×86.4(H)	mm
Interface	RGB 18 bit	
Operating temperature	-20 ~ +70	°C
Storage temperature	-30 ~ +80	°C
Weight	234	g

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RTP

Item	Standard Values	Unit
RTP type	Film + Glass + FPC	--
Surface hardness	3H	--
Transmittance	≥76%	--
RTP size	132.5(W)×103.7(H)×1.4(T)	mm
Active area	116.2(W)×87.4(H)	mm
Response Time	≤10ms	ms
Linearity	≤1.5%	%
Line writing life	10000	times
Operation force	50~120g	g
Resistance	X:450Ω ~ 950Ω Y:140Ω ~ 560Ω	Ω

External Dimensions



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Pin Assignment
LCM PIN: CvlLux CF25331D0R0-05

Pin	Pin Name	Description	Remark
1	VSS	Ground	
2	CLK	Clock input.	
3	IHS	Horizontal sync input. Negative polarity.	
4	IVS	Vertical sync input. Negative polarity.	
5	VSS	Ground	
6	R0	Red Data Input (LSB).	
7	R1	Red Data Input.	
8	R2	Red Data Input.	
9	R3	Red Data Input.	
10	R4	Red Data Input.	
11	R5	Red Data Input (MSB).	
12	VSS	Ground	
13	G0	Green Data Input (LSB).	
14	G1	Green Data Input.	
15	G2	Green Data Input.	
16	G3	Green Data Input.	
17	G4	Green Data Input.	
18	G5	Green Data Input (MSB).	
19	VSS	Ground	
20	B0	Blue Data Input (LSB).	
21	B1	Blue Data Input.	
22	B2	Blue Data Input.	
23	B3	Blue Data Input.	
24	B4	Blue Data Input.	
25	B5	Blue Data Input (MSB).	
26	VSS	Ground	
27	DEN	Data Enable signal.	
28	VCC	Power supply: +3.3V	
29	VCC	Power supply: +3.3V	
30	R/L	Left or Right Display Control.	
31	U/D	Up / Down Display Control.	
32	NC	No connection	
33	VSS	Ground	

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RTP PIN: CVILUX CF25941D0R0-10

Pin	Pin Name	Description	Remark
1	YU	TP Up	
2	XR	TP Right	
3	YD	TP Bottom	
4	XL	TP Left	

Backlight PIN: JST BHSR-02VS-1(N)

Pin	Pin Name	Description	Remark
1	LED A	LED backlight (Anode).	
2	LED K	LED backlight (Cathode).	

Absolute Maximum Ratings

Item	Symbol	Min.	Max.	Unit	Remark
Supply Voltage	VCC	-0.3	4.3	V	

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DC Characteristics
LCM Parameters

Item	Symbol	Min.	Typ.	Max.	Unit	Remark
Power Voltage	VCC	3.0	3.3	3.6	V	
Input logic high voltage	V_{IH}	0.7*VCC	-	VCC	V	
Input logic low voltage	V_{IL}	GND	-	0.3*VCC	V	
Current for Power	I_{CC}	-	270	370	mA	VCC= 3.3V

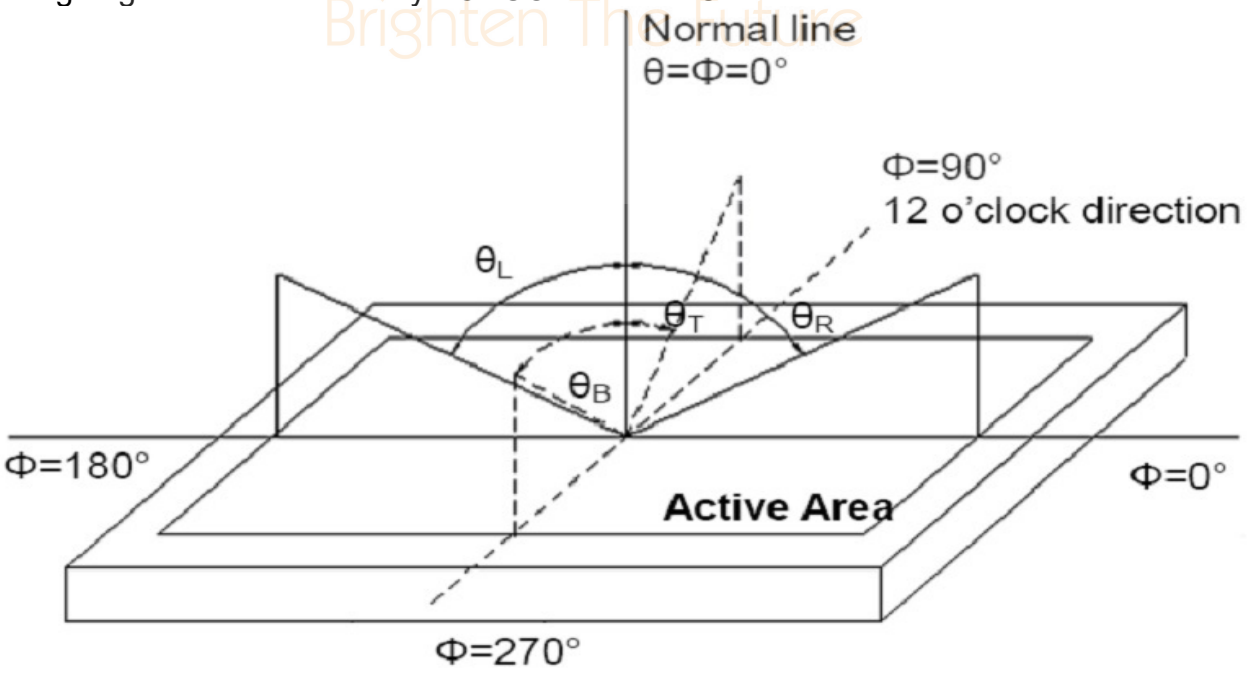
Optical Characteristics

Item	Conditions		Min.	Typ.	Max.	Unit	Remark
Viewing Angle (CR>10)	Horizontal	θ_L	55	65	-	degree	(1) (4)
		θ_R	55	65	-		
	Vertical	θ_T	45	55	-		
		θ_B	55	65	-		
Contrast Ratio	Center		200	350	-	-	(1) (2) (4) (6)
Response Time	Rising		-	15	20	ms	(3) (4) (6)
	Falling			35	40	ms	
CF Color Chromaticity (CIE1931)	Red x		0.54	0.59	0.64	-	(4) (5) (6)
	Red y		0.32	0.37	0.42	-	
	Green x		0.31	0.36	0.41	-	
	Green y		0.54	0.59	0.64	-	
	Blue x		0.13	0.18	0.23	-	
	Blue y		0.08	0.13	0.18	-	
	White x		0.28	0.33	0.38	-	
	White y		0.32	0.37	0.42	-	

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Note:

1. Definition of Viewing Angle:
   Viewing angles are measured by TOPCON BM7-7AC



2. Definition of Contrast Ratio (CR):
   The contrast ratio can be calculated by the following expression
   Contrast Ratio (CR) = L63 / L0
   L63: Luminance of gray level 63, L0: Luminance of gray level 0