Next Vision Display
Brighten The Future

NEXT VISION DISPLAY

SPECIFICATION

CUSTOMER : _____

MODULE NO.: NT057-R002ME

Version	
Engineer	
Date	

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Customer:
Approved by

NEXT VISION DISPLAY CO., LTD.

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Represented by:

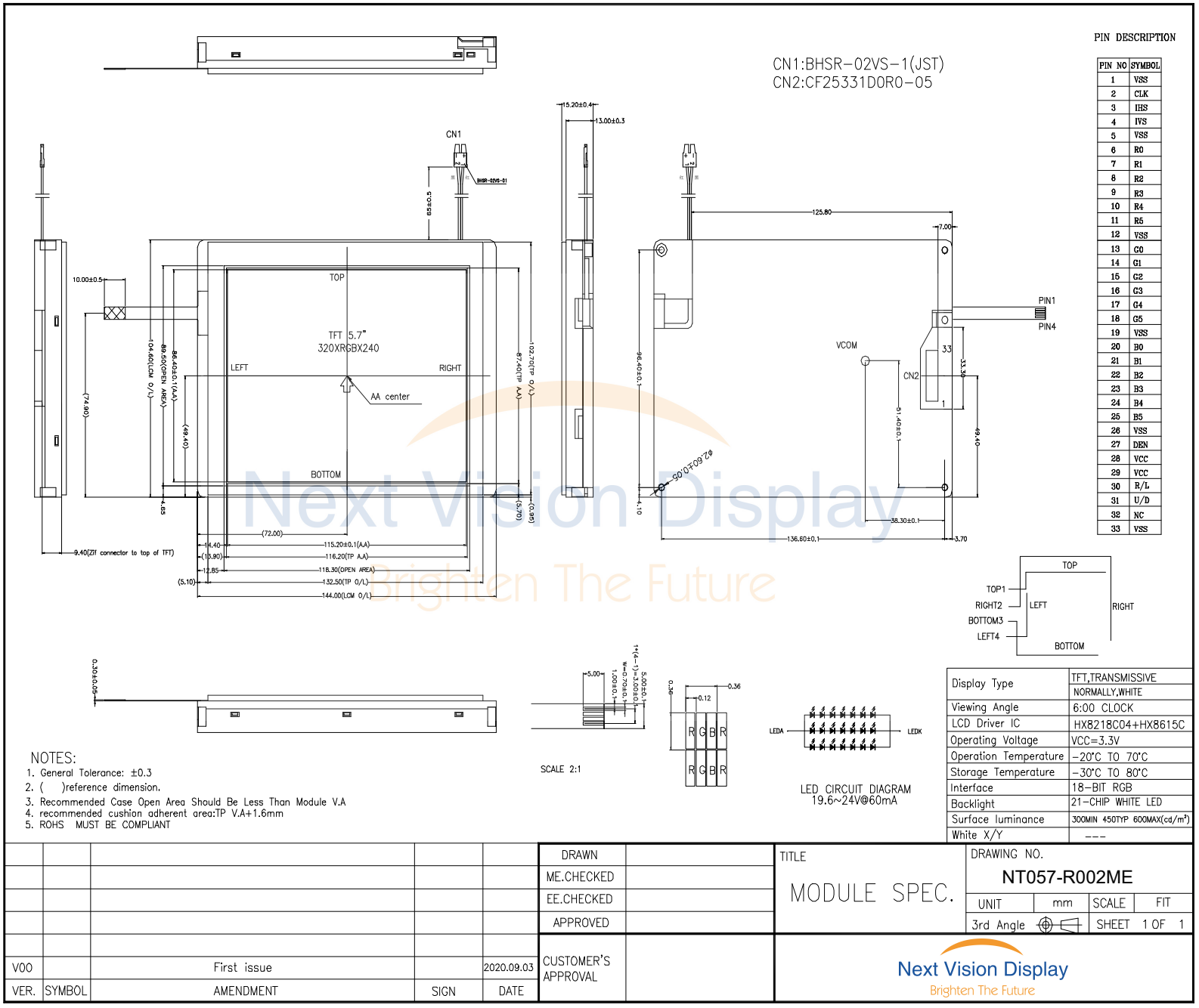
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General Specification

Item	Contents	Unit
LCD TYPE	TFT/TRANSMISSIVE	
MODULE SIZE (W*H*T)	144.00*104.6*15.2(TOTAL)	MM
ACTIVE SIZE (W*H)	115.20*86.40	MM
PIXEL PITCH (W*H)	0.12*0.36	MM
NUMBER OF DOTS	320*240	
DRIVER IC	HX8218C04+HX8615C	
INTERFACE TYPE	18-BIT RGB	
TOP POLARIZER TYPE	Anti-GLARE	
RECOMMEND VIEWING DIRECTION	6	O'CLOCK
GRAY SCALE INVERSION DIRECTION	12	O'CLOCK
BACKLIGHT TYPE	21-DIES WHITE LED	
TOUCH PANEL TYPE	RESISTIVE	

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Mechanical Drawing



PIN NO	SYMBOL
1	VSS
2	CLK
3	IHS
4	IVS
5	VSS
6	R0
7	R1
8	R2
9	R3
10	R4
11	R5
12	VSS
13	G0
14	G1
15	G2
16	G3
17	G4
18	G5
19	VSS
20	B0
21	B1
22	B2
23	B3
24	B4
25	B5
26	VSS
27	DEN
28	VCC
29	VCC
30	R/L
31	U/D
32	NC
33	VSS

Display Type	TFT,TRANSMISSIVE NORMALLY,WHITE
Viewing Angle	6:00 CLOCK
LCD Driver IC	HX8218C04+HX8615C
Operating Voltage	VCC=3.3V
Operation Temperature	-20°C TO 70°C
Storage Temperature	-30°C TO 80°C
Interface	18-BIT RGB
Backlight	21-CHIP WHITE LED
Surface luminance	300MIN 450TYP 600MAX(cd/m²)
White X/Y	---

VER.	SYMBOL	AMENDMENT	SIGN	DATE
V00		First issue		2020.09.03

DRAWN	
ME.CHECKED	
EE.CHECKED	
APPROVED	
CUSTOMER'S APPROVAL	

TITLE: MODULE SPEC.

DRAWING NO.: NT057-R002ME

UNIT: mm | SCALE: FIT | 3rd Angle | SHEET 1 OF 1

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Interface Pin Function

Pin No.	Symbol	Description
1	VSS	Power ground.
2	CLK	Clock signal. Latching data at the rising edge.
3	IHS	Horizontal sync input in digital RGB and CCIR601 mode. (Short to GND if not used)
4	IVS	Vertical sync input in digital RGB and CCIR601 mode. (Short to GND if not used)
5	VSS	Power ground.
6~11	R0~R5	Red data input
12	VSS	Power ground.
13~18	G0~G5	Green data input.
19	VSS	Power ground.
20~25	B0~B5	Blue data input.
26	VSS	Power ground.
27	DEN	Input data enable control. When DE mode, active High to enable data input. Default pull low.
28	VCC	+3.3V Power supply.
29	VCC	+3.3V Power supply.
30	R/L	Right-and-left scan setting.(“L” :normally,“H”:Right and left reversal)
31	U/D	Up/down scan setting.(“L” :normally scan,“H”:Up-and-down reversal)
32	NC	No connection.
33	VSS	Power ground.

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Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply voltage for digital	VCC	-0.3	4.3	V
Supply current (One LED)	I_{LED}		30	mA
Operating temperature	T_{OP}	-20	+70	°C
Storage temperature	T_{ST}	-30	+80	°C

Note: The absolute maximum rating values of this product are not allowed to be exceeded at any times. Should a module be used with any of the absolute maximum ratings exceeded, the characteristics of the module may not be recovered, or in an extreme case, the module may be permanently destroyed.

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Electrical Characteristics

Input Power

Item	Symbol	Min	Typ.	Max	Unit	Applicable terminal
Power supply Voltage	VCC	3.0	3.3	3.6	V	
Input Voltage	V_{IL}	0	-	0.3VCC	V	
	V_{IH}	0.7 VCC	-	VCC		
Power Consumption	P_L		(0.24)		W	
Frame Frequency	Fv	-	60	-	Hz	
Dot Clock	DCLK	-	6.4	7	MHz	

Backlight Driving Conditions

Item	Symbol	Value			Unit	Remark
		Min.	Typ.	Max.		
Voltage for LED Backlight	V_F	19.6	21.7	24	V	I_L =60mA
Current for LED Backlight	I_L		60		mA	
Power Consumption	P		1.302		W	
LED Life Time		30,000	50,000		Hr	Note
Power consumption		19K	20K	21K	Hz	

Note: Brightness to be decreased to 50% of the initial value at ambient temperature TA=25℃

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Optical Characteristics

ITEM		SYMBOL	CONDITIONS	SPECIFICATIONS			UNIT	NOTE
				MIN	TYP.	MAX		
Luminance		L		300	450	600	Cd/m^2	
Contrast Ratio		CR	θ=25°	200	300			
Response Time		T_{ON}	25℃		10	20	ms	
		T_{OFF}			15	30		
CIE Color Coordinate	Red	X_R	Viewing normal angle					
		Y_R						
	Green	X_G						
		Y_G						
	Blue	X_B						
		Y_B						
	White	X_W						
		Y_W						
Viewing Angle	Hor.	θ_{X+}	CR≥10		70		Degree	
		θ_{X-}			70			
	Ver.	θ_{Y+}			60			
		θ_{Y-}			40			
Uniformity	Un			75	80		%	

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