Next Vision Display
Brighten The Future

NEXT VISION DISPLAY

SPECIFICATION

CUSTOMER : _____

MODULE NO.: NT041-C001DW

Version	02
Engineer	
Date	2023-02-22

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Customer:
Approved by

NEXT VISION DISPLAY CO., LTD.

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General Feature

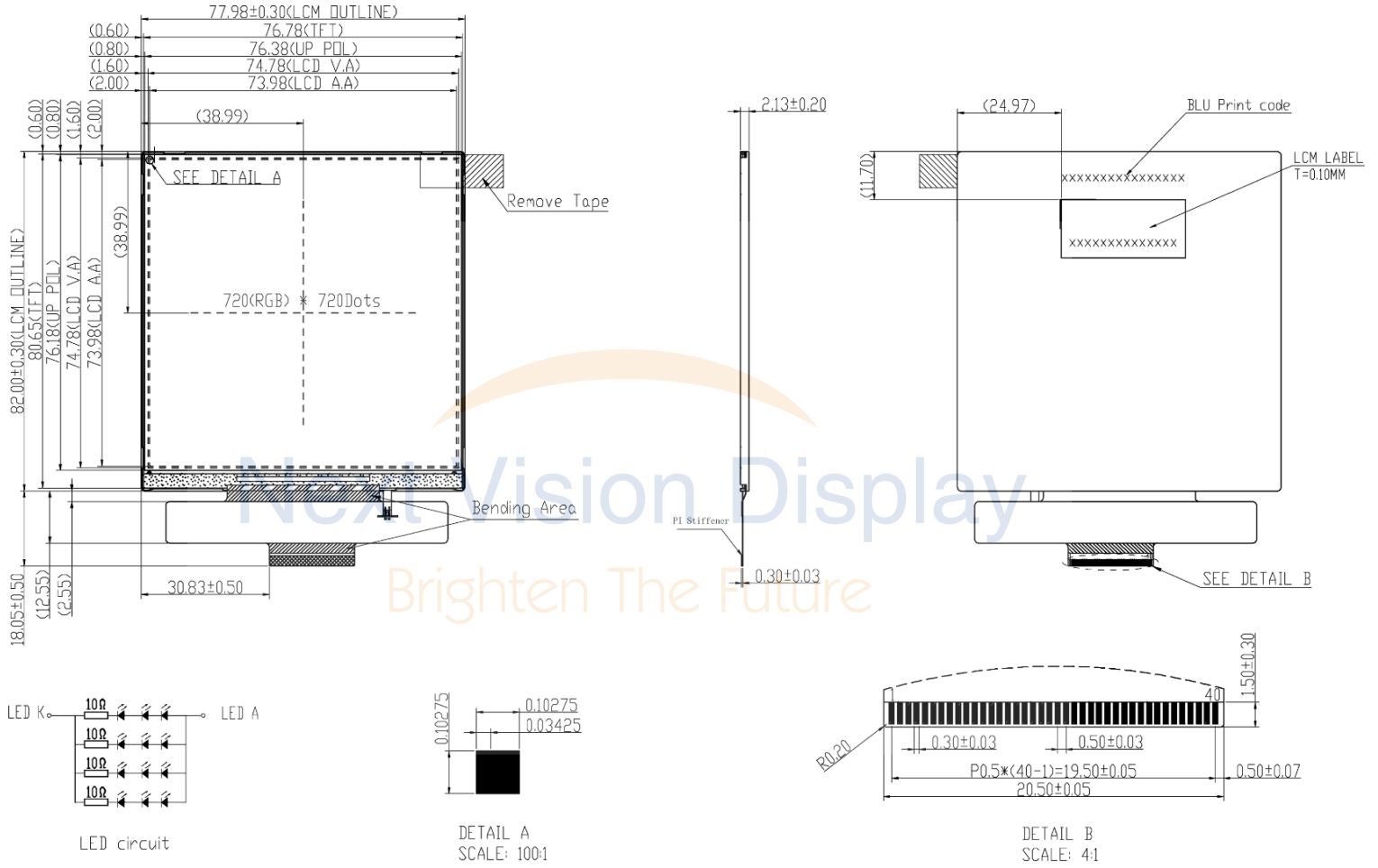
Feature		Description	Unit
Display Spec.	Size	4.12	inch
	Resolution	720(H)*720(V)	pixels
	Pixel Configuration	RGB stripe	-
	Pixel Pitch	0.10275(W)*0.10275(H)	mm
	Viewing Direction	ALL	-
Mechanical Characteristics	Outside Dimension	77.98(W)*82.00(H)*2.13(D)	mm
	Active Area	73.98(W)*73.98(H)	mm
	Luminance	350	cd/m²
	CTP Touch Method	Finger	-
	Number of Simultaneous Touches	2	-
	Minimum Touch Area	Φ7	
	CTP Structure	Incell(Without Cover Lens)	-
	LED Numbers	12 LEDS	-
	Pin Order	From left to right 40PIN_0.5mm	-
	With /Without TSP	With TSP	-
	Matching Connection Type	FH34SRJ-40S-0.5SH(50)	-
Electrical Characteristics	Interface	MIPI	-
	CTP Interface	IIC	-
	Color Depth	16.7M	colors
	Driver Condition	-	V
	Driver IC	ILI2882N	-
Temperature Range	Operating Temp.	-20~70	℃
	Storage Temp.	-30~80	℃

Note: Requirements on Environmental Protection: RoHS. You can use dynamic screen saver wallpapers to avoid afterimages caused by fixed paper display for a long time

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Mechanical Drawing

CN1	
PIN	SYMBOL
1	LEDK
2	LEDA
3	NC
4	GND
5	D2P
6	D2N
7	GND
8	D1P
9	D1N
10	GND
11	CLKP
12	CLKN
13	GND
14	D0P
15	D0N
16	GND
17	D3P
18	D3N
19	GND
20	NC
21	IOVCC
22	AVDD
23	NC
24	AVEE
25	VCCB
26	NC
27	GND
28	NC
29	TE
30	RESET
31	NC
32	GND
33	TP_RESET
34	GND
35	TP_INT
36	GND
37	TP_SDA
38	TP_SCL
39	GND
40	GND



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Input/Output Terminals

Pin NO.	Symbol	Function	Remark
1	LEDK	LED cathode pin	
2	LEDA	LED anode pin	
3	NC	Not connect	
4	GND	Power Ground	
5	D2P	MIPI DSI DATA2 Positive	
6	D2N	MIPI DSI DATA2 Negative	
7	GND	Power Ground	
8	D1P	MIPI DSI DATA1 Positive	
9	D1N	MIPI DSI DATA1 Negative	
10	GND	Power Ground	
11	CLKP	MIPI DSI CLOCK Positive	
12	CLKN	MIPI DSI CLOCK Negative	
13	GND	Power Ground	
14	D0P	MIPI DSI DATA0 Positive	
15	D0N	MIPI DSI DATA0 Negative	
16	GND	Power Ground	
17	D3P	MIPI DSI DATA3 Positive	
18	D3N	MIPI DSI DATA3 Negative	
19	GND	Power Ground	
20	NC	Not connect	
21	IOVCC	Power supply to interface pins(1.8V)	
22	AVDD	Positive input analog power for driver IC use(6.0V)	
23	NC	Not connect	
24	AVEE	Negative input analog power for driver IC use(-6.0V)	
25	VCCB	Power supply to level shift IC(3.3V). If not used, please let it open.	
26	NC	Not connect	
27	GND	Power Ground	
28	NC	Not connect	
29	TE	Tearing effect output signal. If not used, please let this pin open.	
30	RESET	LCM Reset pin, the LCD driver is initialized when RESET active low.	
31	NC	Not connect	
32	GND	Power Ground	
33	TP_RESET	Reset pin, the TP is initialized when RESET active low.	
34	GND	Power Ground	
35	TP_INT	Communication interrupt	
36	GND	Power Ground	
37	TP_SDA	I2C data	
38	TP_SCL	I2C clock	
39	GND	Power Ground	
40	GND	Power Ground	

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Electrical Characteristics

Driving TFT LCD Panel

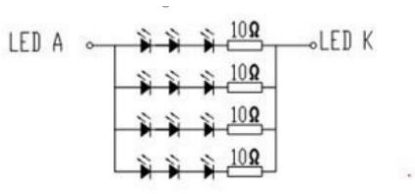
Item	Symbol	Min.	Typ.	Max.	Unit	Remark
Logic Operating Voltage	IOVCC	1.7	1.8	1.9	V	
Current of IOVCC	IIOVCC	-	25	33	mA	
Operating Voltage	AVDD	5.9	6.0	6.1	V	
Current of AVDD	IAVDD	-	8	13	mA	
Operating Voltage	AVEE	-6.1	-6.0	-5.9	V	
Current of AVEE	IAVEE	-	12	20	mA	
Operating Voltage	VCCB	3.2	3.3	3.4	V	
Input Logic High Voltage	VIH	0.7* IOVCC	-	IOVCC	V	IOVCC=1.8V
Input Logic Low Voltage	VIL	0	-	0.3* IOVCC	V	IOVCC=1.8V
Output Logic High Voltage	VOH	0.8* IOVCC	-	IOVCC	V	IOH=-1.0mA
Output Logic Low Voltage	VOL	0	-	0.2* IOVCC	V	IOL=+1.0mA

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LED Backlight Specification

Item	Symbol	Min.	Typ.	Max.	Unit	Remark
Forward Voltage	V_F	-	9.8	11.05	V	
Forward Current	I_F	-	80	100	mA	
Luminance(with LCD)	Lv	300	350	-	cd/m²	
Uniformity(with L/G)	Avg	70	80	-	%	
LED Life-Time	Hr	20000	30000	-	Hour	

Note: 12LEDs (3LEDs Serial,4ways Parallel)



LED circuit

Optical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit	Remark
Viewing Angle	Top	CR≧10	-	85	-	Deg.	Note 2
	Bottom		-	85	-		
	Left		-	85	-		
	Right		-	85	-		
Contrast Ratio	CR	θ=0°	1000	1200	-		
Response Time	T_r+T_d	θ=0°	-	35	45	ms	
Color Chromaticity (CIE1931)	Wx		0.229	0.279	0.329		
	Wy		0.245	0.295	0.345		
	Rx		0.568	0.618	0.668		
	Ry		0.275	0.325	0.375		
	Gx		0.264	0.314	0.364		
	Gy		0.558	0.608	0.658		
	Bx		0.099	0.149	0.199		
	By		0.007	0.057	0.107		
Color Gamut	NTSC		65	70	-	%	

Test conditions:
IF= 80 mA, and the ambient temperature is 25℃.

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