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Brighten The Future

NEXT VISION DISPLAY

SPECIFICATION

CUSTOMER : _____

MODULE NO.: NG12232BN002WS

Version	0
Engineer	
Date	2022/11/08

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Customer:
Approved by

NEXT VISION DISPLAY CO., LTD.

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General Specification

Item	Dimension	Unit
Number of dots	122 x 32 dot	—
Module dimension	77.8 x 27.2 x 13.7(MAX)	mm
View area	60.0 x 18.0	mm
Active area	53.64 x 15.64	mm
Dot size	0.4 x 0.45	mm
Dot pitch	0.44 x 0.49	mm
LCD type	STN Positive, Gray Transflective (In LCD production, It will occur slightly color difference. We can only guarantee the same color in the same batch.)	
Duty	1/32	
View direction	6 o'clock	
Backlight Type	LED White	
IC	AIP31520	
Interface	68 series	

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Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	T_{OP}	-20	—	+70	℃
Storage Temperature	T_{ST}	-30	—	+80	℃
Input Voltage	V_I	-0.3	—	V_{DD}+0.3	V
Supply Voltage For Logic	V_{DD}-V_{SS}	-0.3	—	+6.0	V
LCD bias voltage	V_{LCD}	3.5	—	13	V

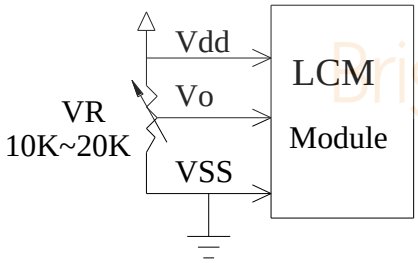
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Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	V_{DD}-V_{SS}	—	2.7	3.3	3.6	V
Supply Voltage For LCD *Note	V_{DD}-V_0	Ta=-20℃ Ta=25℃ Ta=+70℃	— 4.3 —	— 4.45 —	— 4.6 —	V V V
Input High Volt.	V_{IH}	—	2.0	—	V_{DD}	V
Input Low Volt.	V_{IL}	—	0	—	+0.8	V
Output High Volt.	V_{OH}	—	2.4	—	V_{DD}	V
Output Low Volt.	V_{OL}	—	V_{SS}	—	V_{SS}+0.4	V
Supply Current	I_{DD}	—	—	1.0	—	mA

Please avoid the voltage difference between the VDD voltage level of the IC and the external unit such as MCU.

*Note: Please design the VOP adjustment circuit on customer's main board



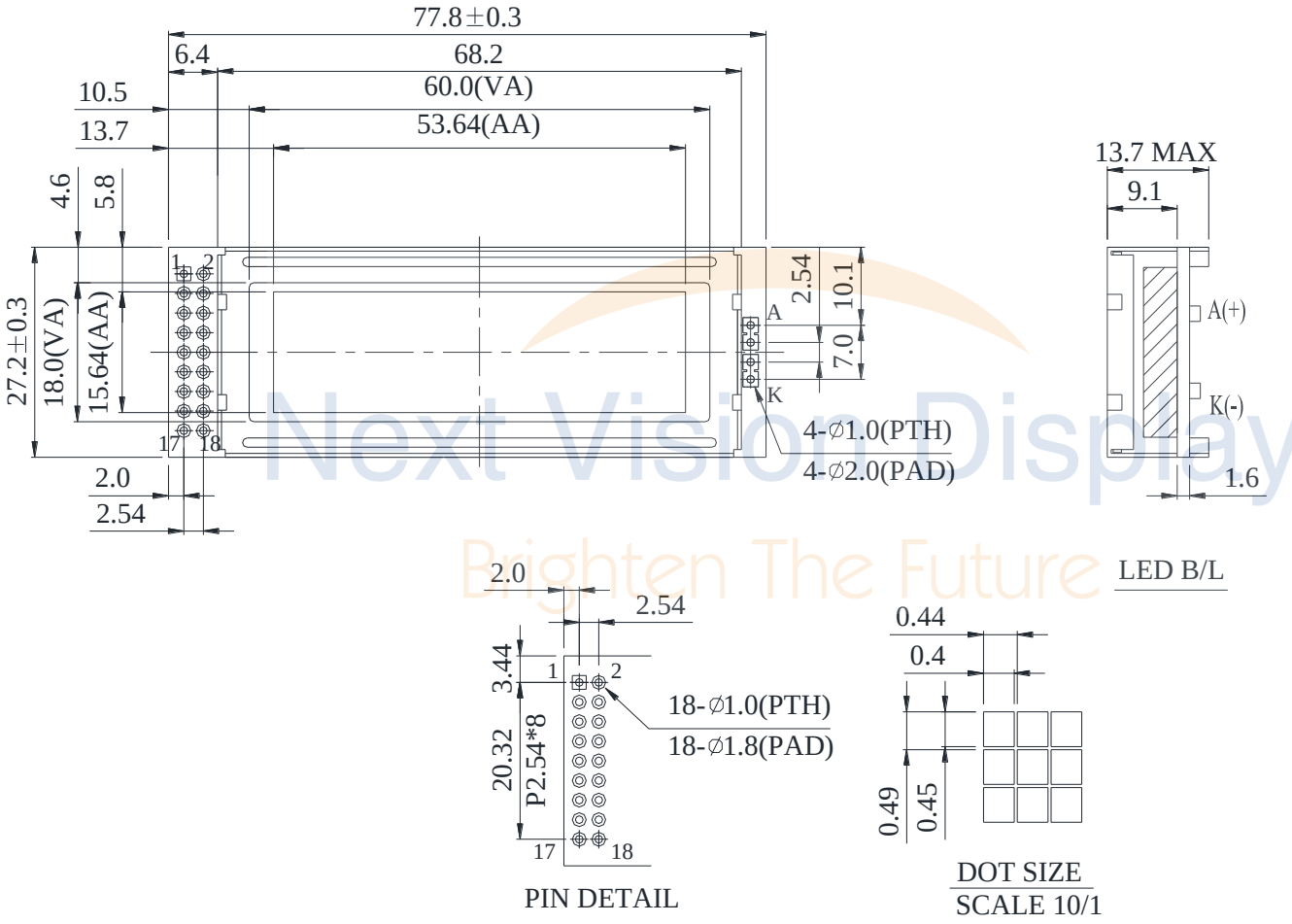
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Interface Pin Function

Pin No.	Symbol	Level	Description
1	V_{ss}	0V	Ground
2	V_{dd}	3.0V	Power supply for logic
3	Vo	(Variable)	Operating voltage for LCD
4	A0	H/L	H : Data L : Instruction
5	E1	H/L	Enable chip 1
6	E2	H/L	Enable chip 2
7	NC	—	NC
8	NC	—	NC
9	R/W	H/L	H : Read ; L : Write
10	DB0	H/L	Data bus line
11	DB1	H/L	Data bus line
12	DB2	H/L	Data bus line
13	DB3	H/L	Data bus line
14	DB4	H/L	Data bus line
15	DB5	H/L	Data bus line
16	DB6	H/L	Data bus line
17	DB7	H/L	Data bus line
18	RST	H/L	H -> L: The LCM be reset

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Contour Drawing &Block Diagram



PIN NO.	SYMBOL
1	Vss
2	Vdd
3	V0
4	A0
5	E1
6	E2
7	NC
8	NC
9	R/$\overline{W}$
10	DB0
11	DB1
12	DB2
13	DB3
14	DB4
15	DB5
16	DB6
17	DB7
18	$\overline{RST}$

The non-specified tolerance of dimension is ±0.3 mm .

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