LCD / LCM SPECIFICATION



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司

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SPECIFICATION

MODULE NO.: WO1602N(VATN)

General Specification

Item	Dimension	Unit
Number of Characters	16 characters x 2 Lines	—
Module dimension	68.2 x 25.2 x 9.7	mm
View area	61.0 x 15.1	mm
Active area	56.2 x 11.5	mm
Dot size	0.55 x 0.65	mm
Dot pitch	0.60 x 0.70	mm
Character size	2.95 x 5.55	mm
Character pitch	3.55 x 5.95	mm
Duty	1/17duty , 1/5 Bias	
Backlight Type	LED	
IC	ST7028-1A	
Interface	I2C	

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Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-20	—	+70	℃
Storage Temperature	TST	-30	—	+80	℃
Power Supply Voltage	VDD	-0.3	—	4.0	V
Supply Voltage For LCD Drive	VOP=V0-VSS	-0.3	—	13.0	V
Input voltage range	VIN	-0.3	—	VDD+0.3	V

Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	V_{DD}-V_{SS}	—	3.0	3.3	3.6	V
Supply Voltage For LCD	Vop	Ta=-20℃	—	—	—	V
		Ta=25℃	6.8	7.0	7.2	V
		Ta=70℃	—	—	—	V
Input High Volt.	V_{IH}	—	0.7 V_{DD}	—	V_{DD}	V
Input Low Volt.	V_{IL}	—	—	—	0.2 V_{DD}	V
Output High Volt.	V_{OH}	—	0.8 V_{DD}	—	V_{DD}	V
Output Low Volt.	V_{OL}	—	—	—	0.2V_{DD}	V
Supply Current	I_{DD}	—	—	—	1.5	mA

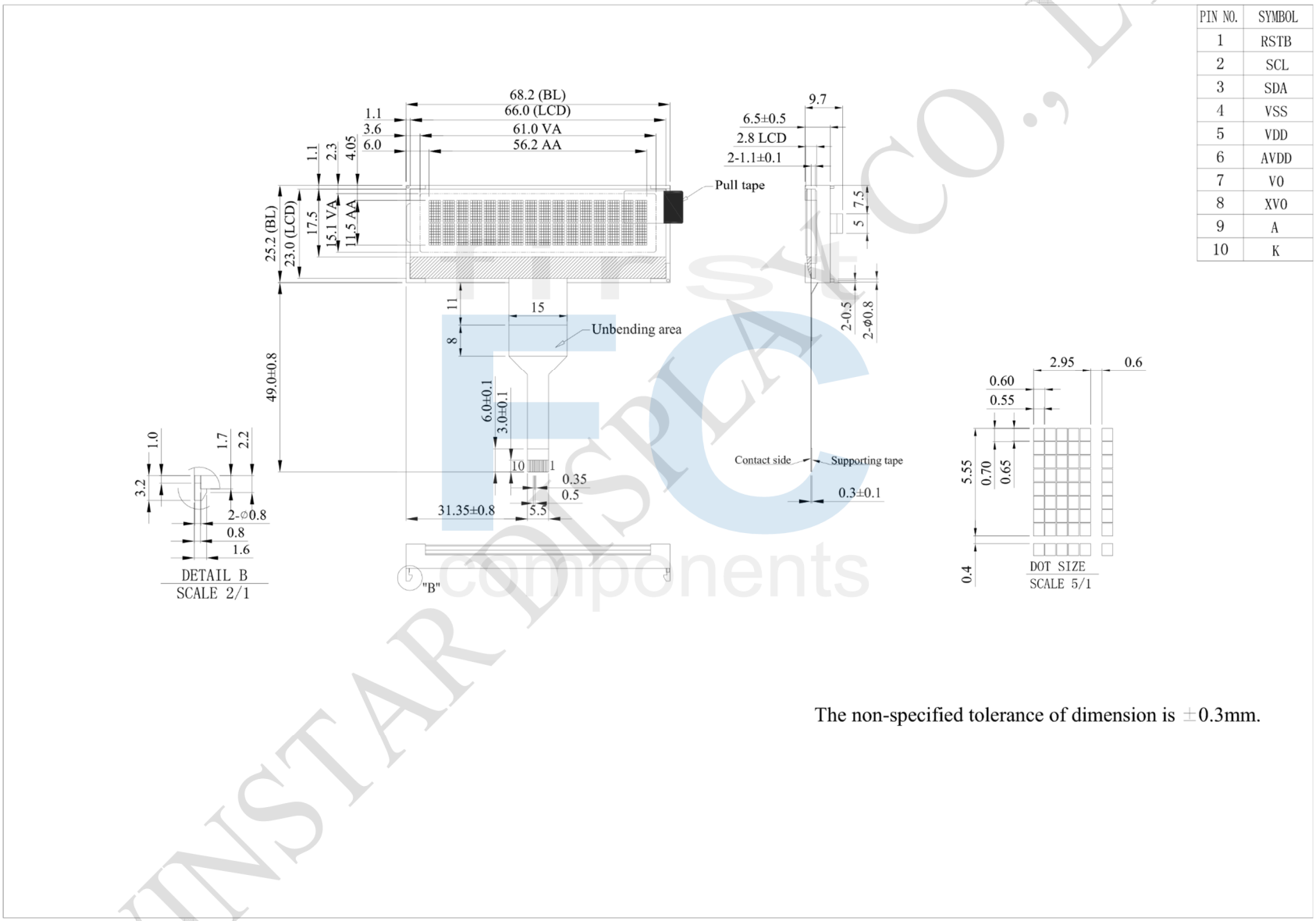
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Interface Pin Function

Pin	Symbol	Function Description
1	RSTB	External reset pin
2	SCL	Serial clock input
3	SDA	Serial Data signal
4	VSS	Ground
5	VDD	Power supply
6	AVDD	AVDD is the source of VG regulator.
7	V0	V0 is the LCD driving voltage for common circuits at negative frame.
8	XV0	XV0 is the LCD driving voltage for common circuits at positive frame.
9	A	LED+
10	K	LED-

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Contour Drawing



PIN NO.	SYMBOL
1	RSTB
2	SCL
3	SDA
4	VSS
5	VDD
6	AVDD
7	V0
8	XV0
9	A
10	K

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

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