



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司

SPECIFICATION

MODULE NO.:

WO1602B

General Specification

Item	Dimension	Unit
Number of Characters	16 characters x 2 Lines	—
Module dimension	85.0*30.0*6.2	mm
View area	76.0*18.0	mm
Active area	73.81*15.88	mm
Dot size	0.75*0.9	mm
Dot pitch	0.79*0.97	mm
Character size	3.91*7.69	mm
Character pitch	4.66*8.19	mm
Duty	1/16 , 1/5 Bias	
Backlight Type	LED	
IC	ST7032i	
Interface	I ² C	

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	T _{OP}	-20	—	+70	°C
Storage Temperature	T _{ST}	-30	—	+80	°C
Input Voltage	V _{IN}	-0.3	—	V _{DD} +0.3	V
Power Supply Voltage	V _{DD} -V _{SS}	-0.3	—	+6.0	V
LCD Driver Voltage	V _{LCD}	7.0-V _{SS}	—	-0.3+V _{SS}	V

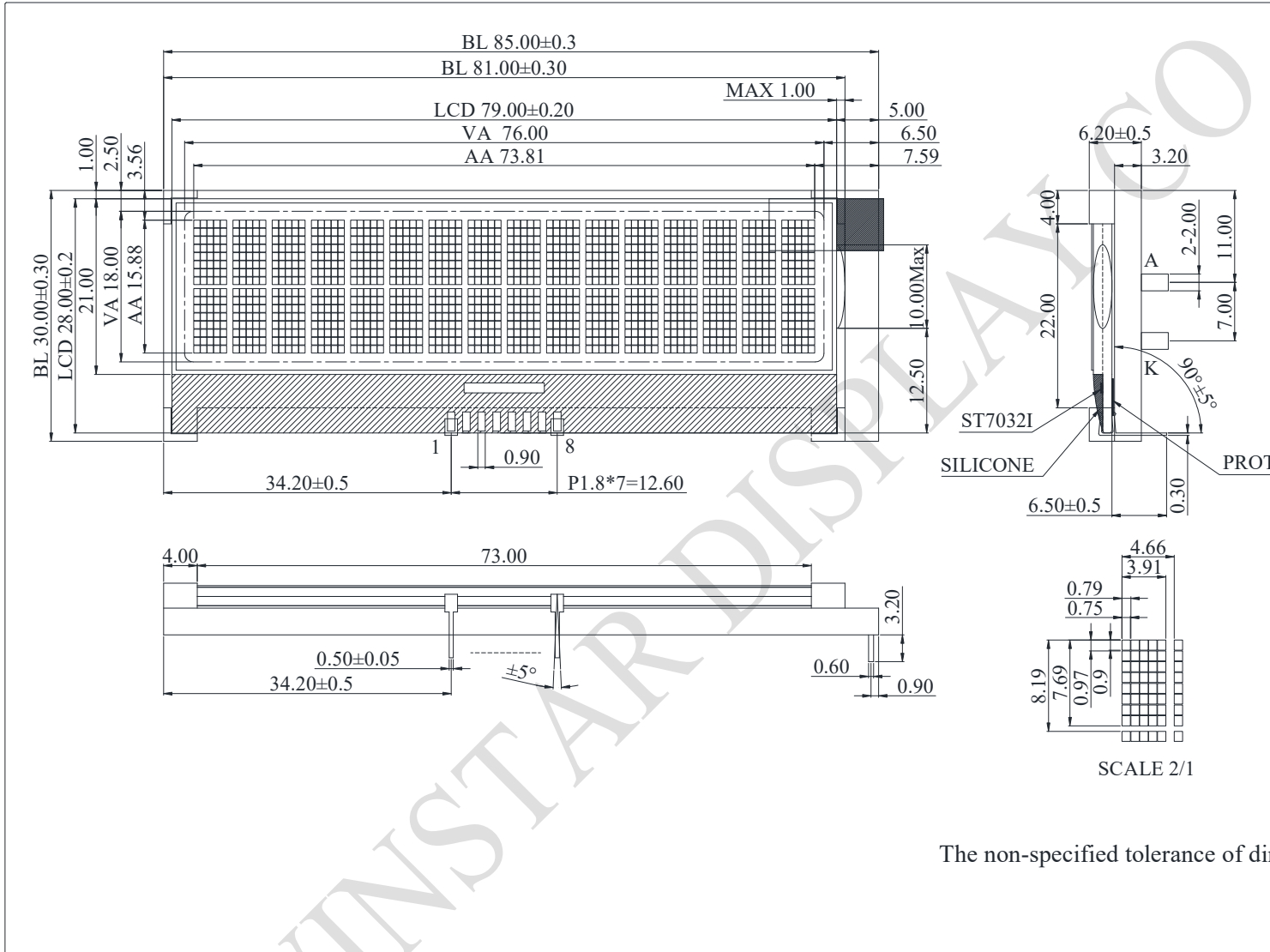
Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	V _{DD} -V _{SS}	—	3	3.3	5 (bon=1 max=3.5V)	V
Supply Voltage For LCD	V _{LCD}	T _a =-20°C	—	—	—	V
		T _a =25°C	4.3	4.5	4.7	V
		T _a =70°C	—	—	—	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(No include LED Backlight)	I _{DD}	—	—	—	2.0	mA

Interface Pin Function

Pin No.	Symbol	Level	Description
1	VOUT		DC/DC voltage converter. Connect a capacitor between this terminal and VIN when the built-in booster is used.
2	CAP-		For voltage booster circuit(VDD-VSS)
3	CAP+		External capacitor about 0.1u~4.7uf
4	VDD	3.0/5.0V	Power supply
5	VSS		GND
6	SDATA		(In I2C interface DB7 (SDATA) is input data. SDATA and SCLK must connect to I2C bus (I2C bus is to connect a resister between SDATA/ SCLK and the power of I2C bus).
7	SCLK		(In I2C interface DB6 (SCLK) is clock input. SDA and SCLK must connect to I2C bus (I2C bus is to connect a resister between SDATA/SCLK and the power of I2C bus).
8	RST		RESET (Low active)

Contour Drawing



The non-specified tolerance of di