



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.:

WG16032E

General Specification

Item	Dimension	Unit
Number of dots	160 x 32	—
Module dimension	85.2 x 55.0 x 12.0 (MAX)	mm
View area	74.0 x 22.0	mm
Active area	70.36 x 19.47	mm
Dot size	0.40 x 0.56	mm
Dot pitch	0.44 x 0.61	mm
Duty	1/32	
Backlight Type	LED	
IC	RW1020	
Interface	68 series	

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
Supply Voltage For Logic	V _{DD} -V _{SS}	-0.3	—	7.0	V

Electrical Characteristics

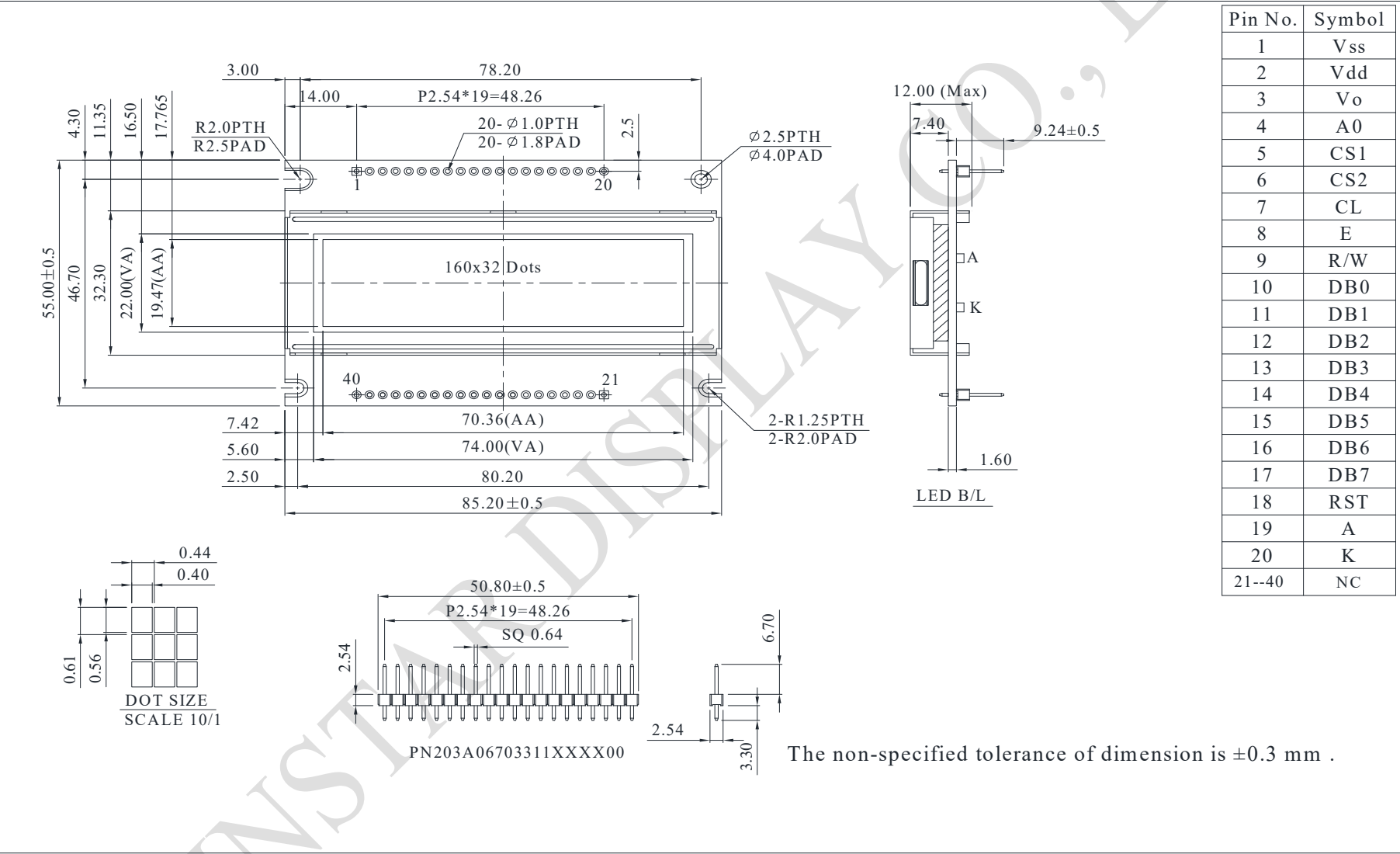
Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	V _{DD} -V _{SS}	—	4.5	5.0	5.5	V
Supply Voltage For LCM	V _{DD} -V ₀	T _a =-20°C	—	—	—	V
		T _a =25°C	3.5	3.7	3.9	V
		T _a =+70°C	—	—	—	V
Input High Volt.	V _{IH}	—	0.85V _{DD}	—	V _{DD}	V
Input Low Volt.	V _{IL}	—	0	—	0.8	V
Output High Volt.	V _{OH}	—	0.8V _{DD}	—	V _{DD}	V
Output Low Volt.	V _{OL}	—	0	—	0.4	V
Supply Current	I _{DD}	V _{DD} =5.0V	—	2.0	2.2	mA

Please avoid the voltage difference between the V_{DD} voltage level of the IC and the external unit such as MCU.

Interface Pin Function

Pin No.	Symbol	Level	Description
1	VSS	0V	Ground
2	VDD	5.0V	Power supply for logic
3	Vo	(Variable)	Operating voltage for LCD
4	A0	H/L	H : Data L : Instruction
5	CS1	H/L	CS1=0 CS2=0 chip select signal for s1~s61
6	CS2	H/L	CS1=0 CS2=1 chip select signal for s62~s141 CS1=1 CS2=0 chip select signal for s142~s168
7	CL	-	Clock 2KHz
8	E	H,H→L	Chip Enable signal
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
19	A	-	Power supply for B/L +
20	K	-	Power supply for B/L -
21~40	NC	-	No connection

Contour Drawing



Pin No.	Symbol
1	Vss
2	Vdd
3	Vo
4	A0
5	CS1
6	CS2
7	CL
8	E
9	R/W
10	DB0
11	DB1
12	DB2
13	DB3
14	DB4
15	DB5
16	DB6
17	DB7
18	RST
19	A
20	K
21--40	NC