



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.:

WG320240BX

General Specification

Item	Dimension	Unit
Number of dots	320 x 240	—
Module dimension	160.0 x 109.0 x 13.0(MAX)	mm
View area	122.0 x 92.0	mm
Active area	115.18 x 86.38	mm
Dot size	0.34 x 0.34	mm
Dot pitch	0.36 x 0.36	mm
Duty	1/240	
Backlight Type	LED	
IC	S1D 13700	
Interface	8080	

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	—	$V_{DD}+0.5$	V
Output Voltage	V_{OUT}	-0.3	—	$V_{DD}+0.5$	V
Supply Voltage For Logic	$V_{DD}-V_{SS}$	0	—	6.5	V
Supply Voltage For LCD	$V_{DD}-V_0$	0	—	32	V

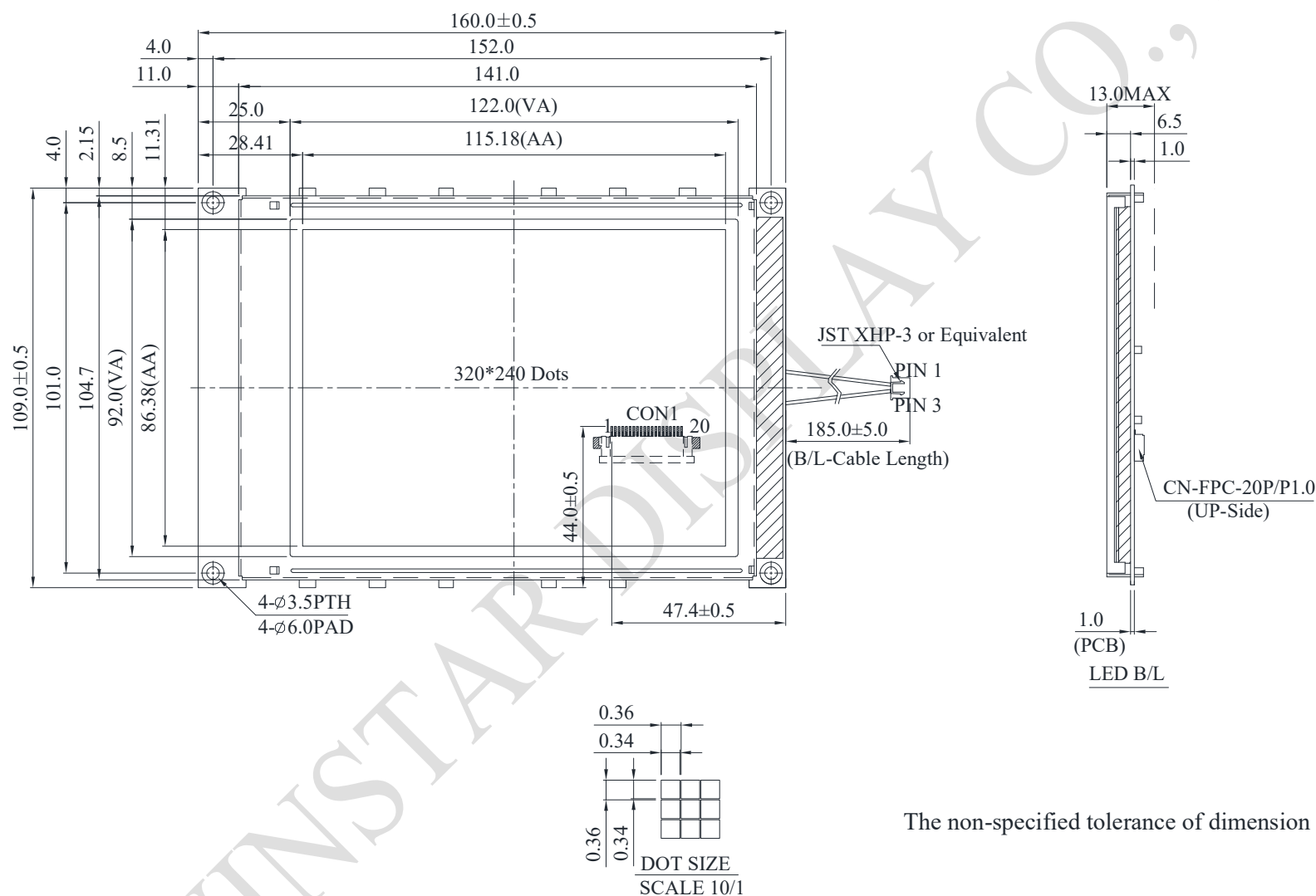
Electrical Characteristics

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 LCD	$V_{DD}-V_0$	$T_a=-20^{\circ}\text{C}$	—	—	26.1	V
		$T_a=25^{\circ}\text{C}$	23.0	23.6	24.2	V
		$T_a=70^{\circ}\text{C}$	22.2	—	—	V
Input High Volt.	V_{IH}	—	3.5	—	—	V
Input Low Volt.	V_{IL}	—	—	—	1.0	V
Output High Volt.	V_{OH}	—	$V_{DD}-0.4$	—	—	V
Output Low Volt.	V_{OL}	—	—	—	0.4	V
Supply Current	I_{DD}	$V_{DD}=5.0\text{V}$	35.0	65.0	110.0	mA

Interface Pin Function

Pin No.	Symbol	Level	Description
1	VSS	0V	Ground
2	VDD	5.0V	Power supply for Logic
3	V0	(Variable)	Driving voltage for LCD
4	A0	H/L	RD=L WR=H ,A0=L :Data Read AO=H :Status read RD=H WR=L ,A0=L :Data Write AO=H :Command write
5	WR	H/L	8080 family: Write signal, 6800 family: R/W signal
6	RD	H/L	8080 family: Read signal, 6800 family: Enable clock
7~14	DB0~DB7	H/L	Data bus line
15	CS	H/L	Chip select ,Active L
16	RES	H/L	Controller reset signal, Active L
17	Vee	—	Negative Voltage Output
18	NC		No connection
19	FG	—	Frame Ground
20	WAIT	—	Check Busy

Contour Drawing



Pin No.	Symbol
1	V _{SS}
2	V _{DD}
3	V _O
4	A0
5	$\overline{WR}$
6	$\overline{RD}$
7	DB0
8	DB1
9	DB2
10	DB3
11	DB4
12	DB5
13	DB6
14	DB7
15	$\overline{CS}$
16	$\overline{RES}$
17	V _{EE}
18	NC
19	FG
20	WAIT

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