LCD / LCM SPECIFICATION

WINSTAR Display Co.,Ltd.

華凌光電股份有限公司

SPECIFICATION

MODULE NO.: WG320240C0

General Specification

Item	Dimension	Unit
Number of dots	320 x 240	—
Module dimension	148.02 x 120.24 x 16.0 (MAX)	mm
View area	120.14 x 92.14	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	RA8835	
Interface	68 series	

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	T_{OP}	-20	–	+70	℃
Storage Temperature	T_{ST}	-30	–	+80	℃
Input Voltage	V_{IN}	-0.3	–	$V_{DD+0.3}$	V
Supply Voltage For Logic	V_{DD}-V_{SS}	-0.3	–	7.0	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 * Note	V_{DD}-V_O	Ta=-20℃	–	–	–	V
		Ta=25℃	–	–	–	V
		Ta=70℃	–	–	–	V
Input High Volt.	V_{IH}	–	0.5V_{DD}	–	V_{DD}	V
Input Low Volt.	V_{IL}	–	V_{SS}	–	0.2V_{DD}	V
Output High Volt.	V_{OH}	–	V_{DD} -0.4	–	–	V
Output Low Volt.	V_{OL}	–	–	–	V_{SS} +0.4	V
Supply Current	I_{DD}	V_{DD}=5.0V	90.0	100.0	105.0	mA

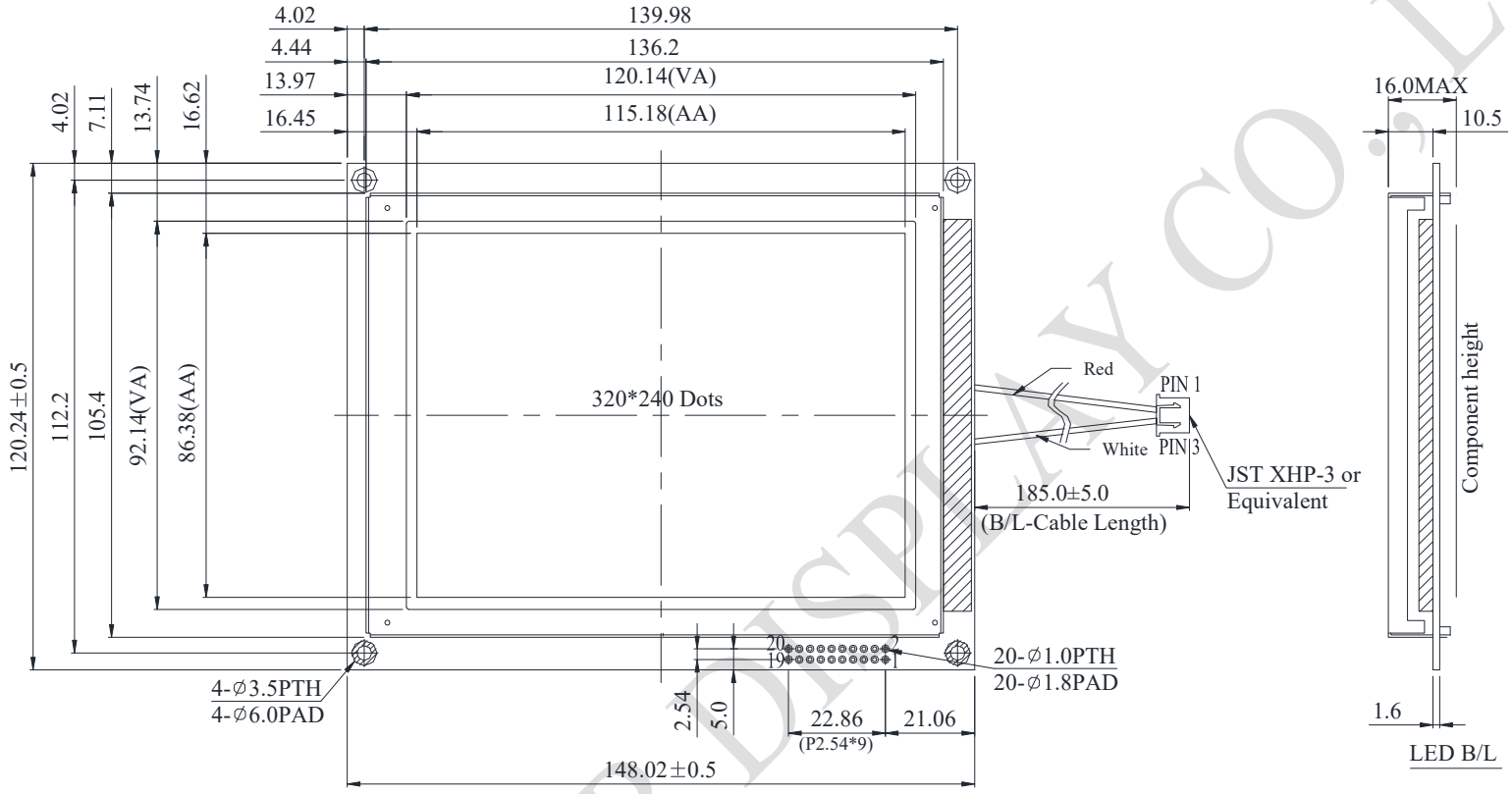
* Note: The VOP of best contrast adjust via VR resistor

Interface Pin Function

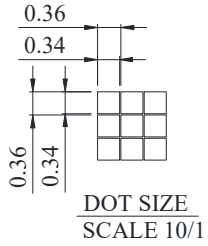
For 68 Family

Pin No.	Symbol	Level	Description
1	VSS	0V	GND
2	VDD	5.0V	Power supply for Logic
3	VO		No connection
4	/RD	H/L	8080 family: Read signal,**6800 family :Enable Clock**
5	/WR	H/L	8080 family: Write signal,**6800 family :R/W signal**
6	A0		Data type select
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	FGND		Frame Ground
19	NC		No connection
20	NC		No connection

Contour Drawing &Block Diagram



PIN NO.	SYMBOL
1	Vss
2	Vdd
3	Vo
4	$\overline{RD}$
5	$\overline{WR}$
6	A0
7	DB0
8	DB1
9	DB2
10	DB3
11	DB4
12	DB5
13	DB6
14	DB7
15	$\overline{CS}$
16	$\overline{RES}$
17	Vee
18	FGND
19	NC
20	NC



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