



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 | 6800 | |

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 |
| Supply Voltage For LCD | $V_{DD}-V_0$ | 0 | — | 32 | V |

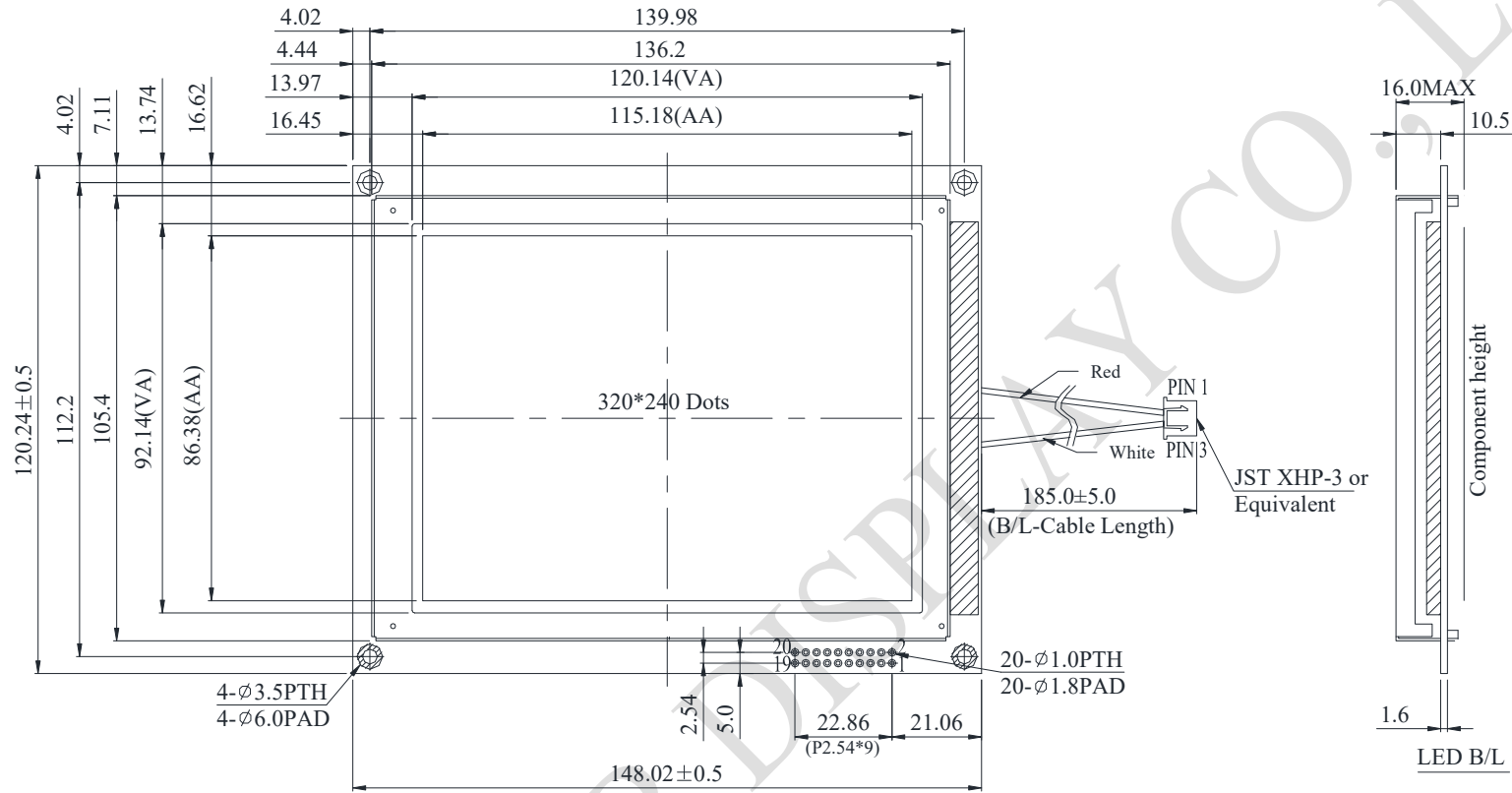
Electrical Characteristics

| 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 | $V_{DD}-V_0$ | $T_a=-20^{\circ}C$ | — | — | — | V |
| | | $T_a=25^{\circ}C$ | — | — | — | V |
| | | $T_a=70^{\circ}C$ | — | — | — | 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 |

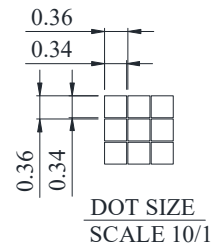
Interface Pin Function

| Pin No. | Symbol | Level | Description |
|---------|-----------------|-------|---|
| 1 | V _{SS} | 0V | GND |
| 2 | V _{DD} | 5.0V | Power supply for Logic |
| 3 | V _O | | 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 | | RD =L,WR=H A0=L: Data Read A0=H: Status read RD =H,WR=L A0=L: Data Write A0=H: Command write For80 Family |
| | | | RD =L,WR=H A0=L: Command write A0=H: Data read RD =H,WR=L A0=L: Status read A0=H: Data write For68 Family |
| 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 | V _{ee} | | Negative voltage output |
| 18 | FGND | | Frame Ground |
| 19 | NC | | No connection |
| 20 | NC | | No connection |

Contour Drawing



| PIN NO. | SYMBOL |
|---------|------------------|
| 1 | V _{ss} |
| 2 | V _{dd} |
| 3 | V _o |
| 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 | V _{ee} |
| 18 | FGND |
| 19 | NC |
| 20 | NC |



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