**Winstar Display Co., LTD**
華凌光電股份有限公司
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# SPECIFICATION

**CUSTOMER :** _____

**MODULE NO.: WG240128B-TFH-VZ#020**

| APPROVED BY: ( FOR CUSTOMER USE ONLY ) | PCB VERSION: | DATA: |
|---|---|---|

| SALES BY | APPROVED BY | CHECKED BY | PREPARED BY |
|---|---|---|---|
| | | | |

| VERSION | DATE | REVISED PAGE NO. | SUMMARY |
|---|---|---|---|
| E | 2014/07/10 | | Remove IC information Modify IDD & Response Time & B/L information |

Represented by:
FIRST Components s.r.l.
www.first-components.com
technical@first-components.com
+39 0332 1888005

# 3.General Specification

| Item | Dimension | Unit |
|---|---|---|
| Number of dots | 240 x 128 | — |
| Module dimension | 144.0 x 104.0 x 15.8(MAX) | mm |
| View area | 114.0 x 64.0 | mm |
| Active area | 107.98 x 57.58 | mm |
| Dot size | 0.43 x 0.43 | mm |
| Dot pitch | 0.45 x 0.45 | mm |
| LCD type | FSTN Positive Transflective<br>(In LCD production, It will occur slightly color difference. We can only guarantee the same color in the same batch.) | |
| Duty | 1/128 | |
| View direction | 6 o'clock | |
| Backlight Type | LED ,White | |
| IC | RA6963 | |

# 4.Absolute Maximum Ratings

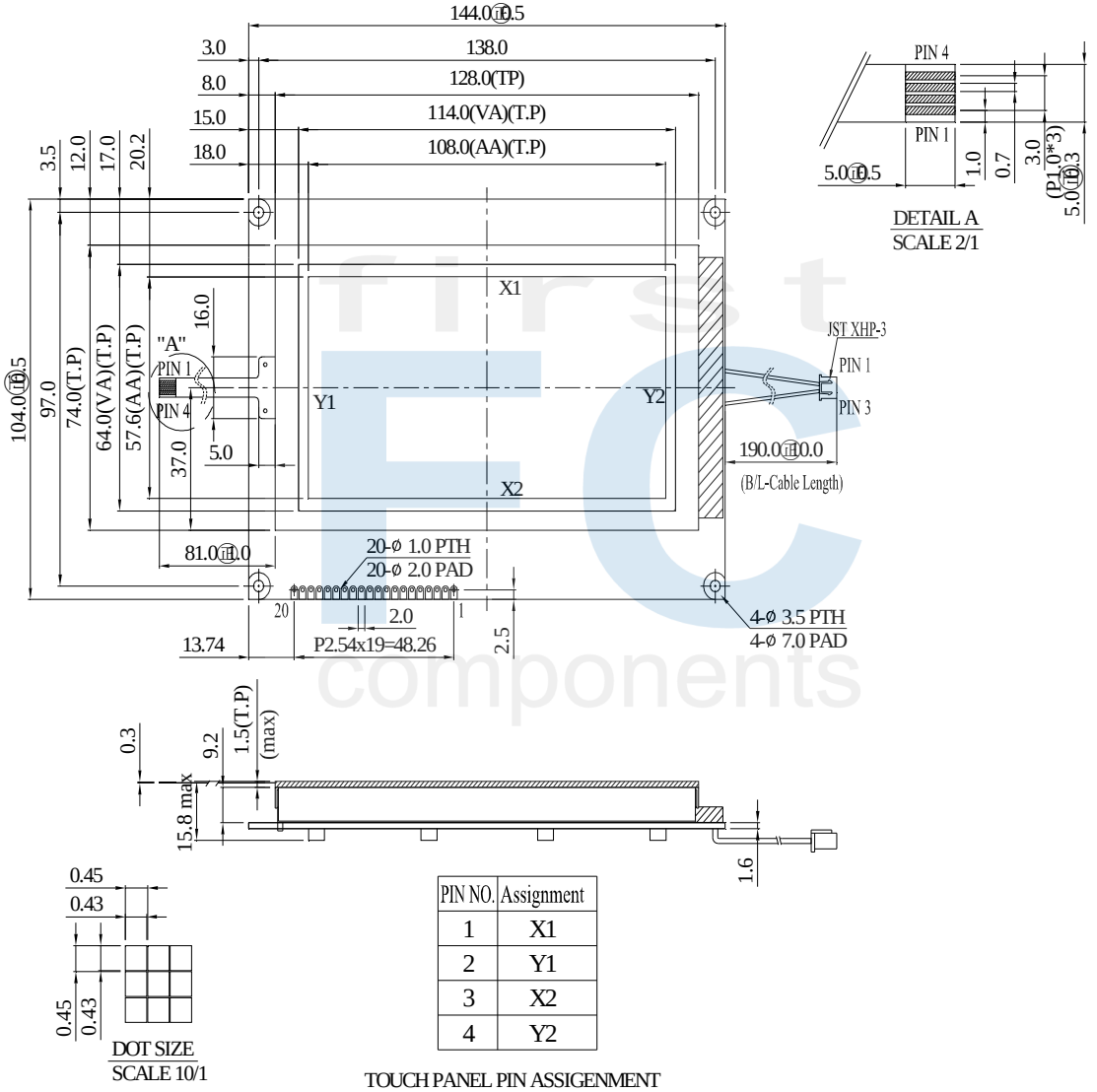
| Item | Symbol | Min | Typ | Max | Unit |
|---|---|---|---|---|---|
| Operating Temperature | $T_{OP}$ | -20 | — | +70 | ℃ |
| Storage Temperature | $T_{ST}$ | -30 | — | +80 | ℃ |
| Input Voltage | $V_{IN}$ | -0.3 | — | $V_{DD}$+0.3 | V |
| Supply Voltage For Logic | $V_{DD}$-$V_{SS}$ | -0.3 | — | +7.0 | V |

# 7.Interface Pin Function

| Pin No. | Symbol | Level | Description |
|---|---|---|---|
| 1 | Vss | — | GND |
| 2 | Vdd | — | Power supply |
| 3 | Vo | — | Power supply for LCD driver |
| 4 | C/D | H / L | WR=L , C/D=H : Command Write C/D=L: Data write<br>RD=L , C/D=H : Status Read C/D=L: Data read |
| 5 | /RD | L | Data read. Read data from RA6963 when RD = L |
| 6 | /WR | L | Data write. Write data into RA6963 when WR = L |
| 7 | DB0 | H / L | Data bus line |
| 8 | DB1 | H / L | Data bus line |
| 9 | DB2 | H / L | Data bus line |
| 10 | DB3 | H / L | Data bus line |
| 11 | DB4 | H / L | Data bus line |
| 12 | DB5 | H / L | Data bus line |
| 13 | DB6 | H / L | Data bus line |
| 14 | DB7 | H / L | Data bus line |
| 15 | /CE | L | L : Chip enable |
| 16 | /RESET | H / L | H : Normal ; L : Initialize RA6963 |
| 17 | Vee | — | Negative Voltage output |
| 18 | MD2 | H / L | H: 32 columns ; L: 40 columns |
| 19 | FS1 | H / L | Pins for selection of font ; H : 6 * 8 , L : 8 * 8 |
| 20 | NC | — | No connection |

first components

# 8.Contour Drawing &Block Diagram



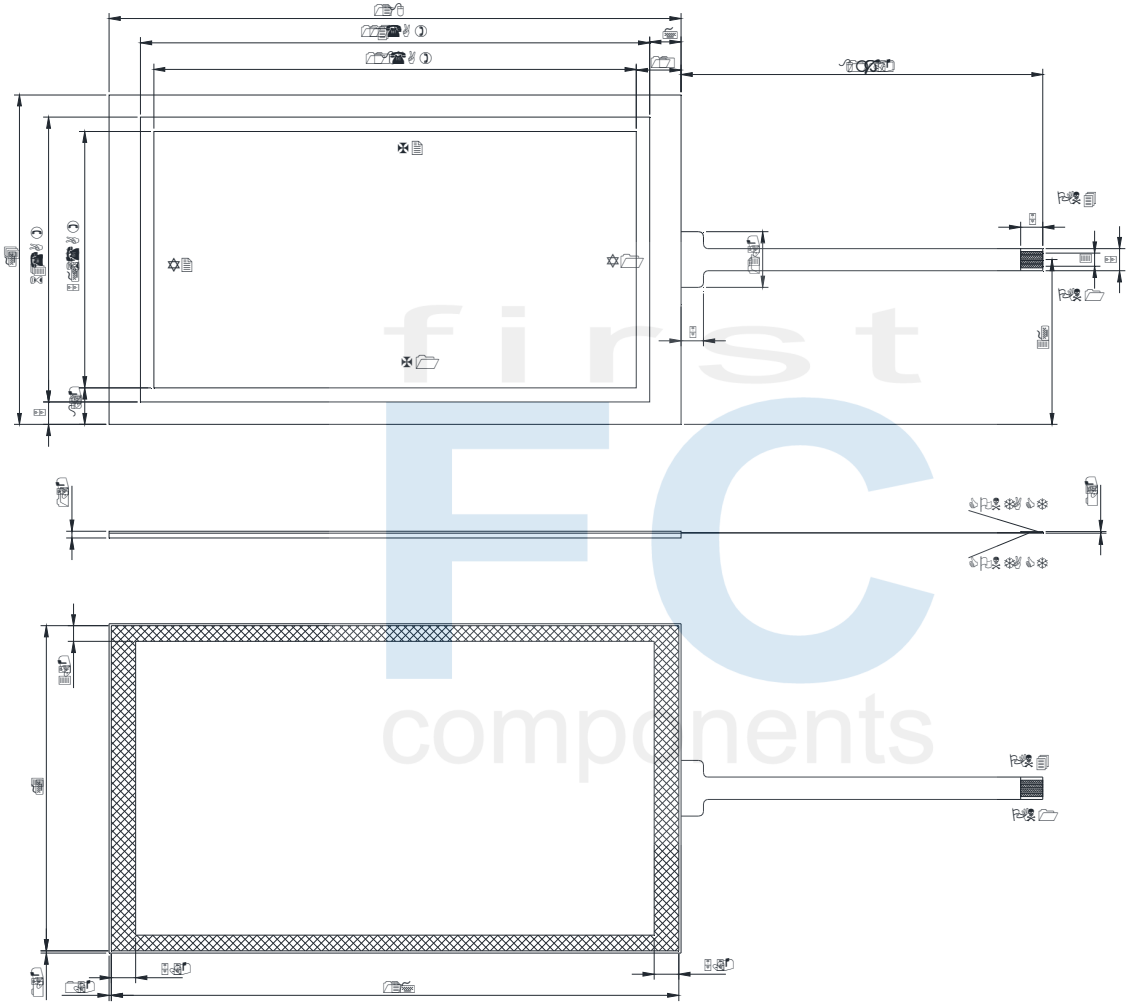

| PIN NO. | Assignment |
|---|---|
| 1 | X1 |
| 2 | Y1 |
| 3 | X2 |
| 4 | Y2 |

TOUCH PANEL PIN ASSIGENMENT

| PIN NO. | SYMBOL |
|---|---|
| 1 | Vss |
| 2 | Vdd |
| 3 | Vo |
| 4 | C/D |
| 5 | $\overline{RD}$ |
| 6 | $\overline{WR}$ |
| 7 | DB0 |
| 8 | DB1 |
| 9 | DB2 |
| 10 | DB3 |
| 11 | DB4 |
| 12 | DB5 |
| 13 | DB6 |
| 14 | DB7 |
| 15 | $\overline{CE}$ |
| 16 | $\overline{RESET}$ |
| 17 | Vee |
| 18 | MD2 |
| 19 | FS1 |
| 20 | NC |

first components

# 11.Touch panel Information



| PIN NO. | Assignment |
|---|---|
| | |
| | |
| | |
| | |

### *Non-Proper Ways to handle the touch screen*

1.Do not pull or crease the tail of the touch screen.

2.Tails, unless the drawing calls out for a bend, are to be free of permanent creases in the polyester, slight crease lines in the adhesive tail cover are allowed.