



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司

SPECIFICATION

MODULE NO.: WO12864Q

General Specification

| Item | Dimension | Unit |
|------------------|----------------------|------|
| Number of Dots | 128 x 64 dots | — |
| Module dimension | 80.0 x 54.0 x 9.5 | mm |
| View area | 70.7 x 38.8 | mm |
| Active area | 66.52 x 33.24 | mm |
| Dot size | 0.48 x 0.48 | mm |
| Dot pitch | 0.52 x 0.52 | mm |
| Duty | 1/65 , 1/9 Bias | |
| Backlight Type | LED | |
| IC | ST7567 | |
| Interface | 6800/8080/4-Line SPI | |

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_I | -0.3 | — | $V_{DD}+0.3$ | V |
| Digital Power Supply Voltage | $V_{DD}-V_{SS}$ | -0.3 | — | 3.6 | V |
| LCD Power supply voltage | V0-XV0 | -0.3 | — | 16 | V |

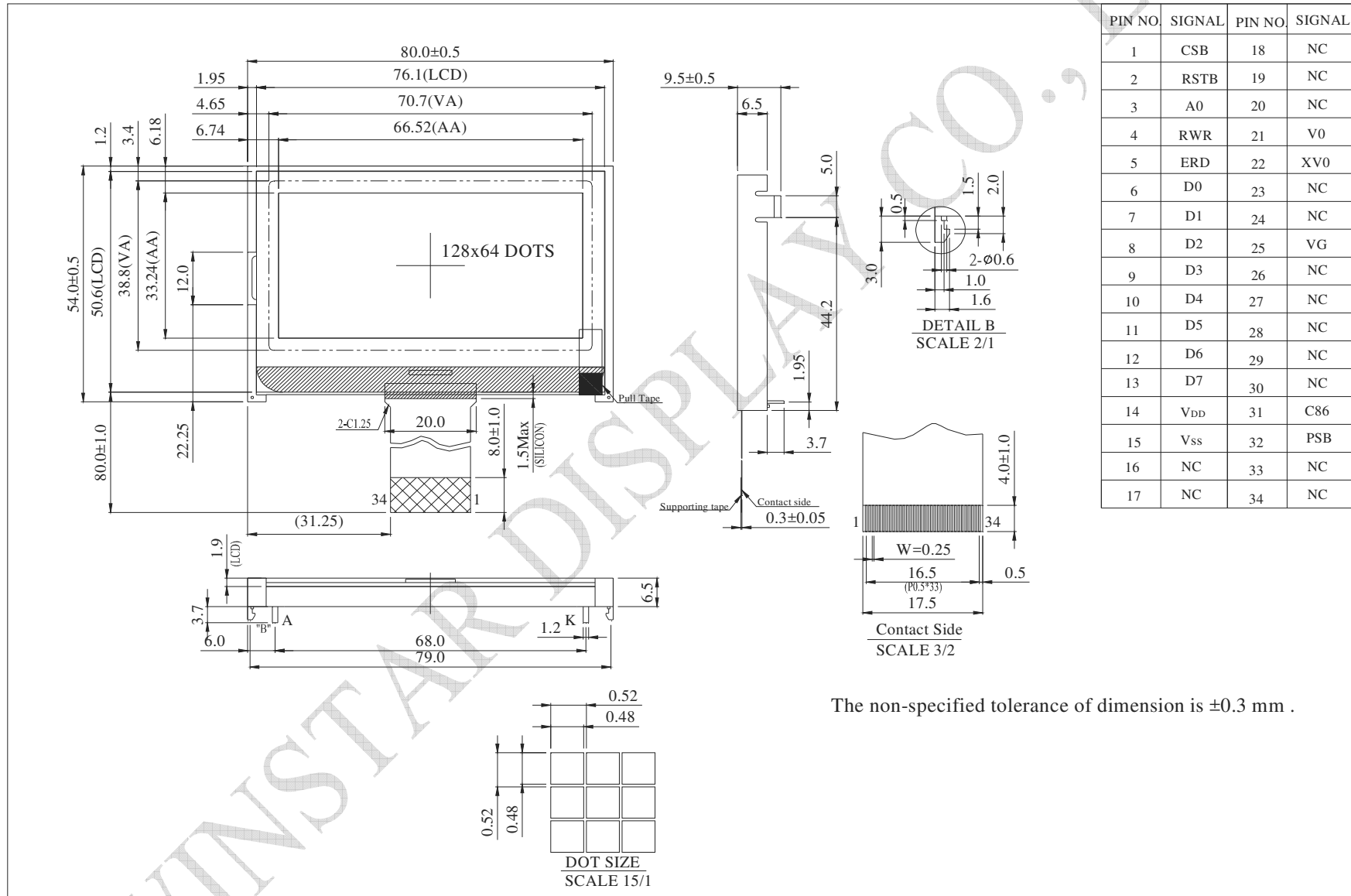
Electrical Characteristics

| Item | Symbol | Condition | Min | Typ | Max | Unit |
|--------------------------|-----------------|--------------------|--------------|-----|--------------|------|
| Supply Voltage For Logic | $V_{DD}-V_{SS}$ | — | 2.7 | 3.0 | 3.3 | V |
| Supply Voltage For LCM | V_{OP} | $T_a=-20^{\circ}C$ | — | — | — | V |
| | | $T_a=25^{\circ}C$ | 9.7 | 9.9 | 10.1 | V |
| | | $T_a=70^{\circ}C$ | — | — | — | V |
| Input High Volt. | V_{IH} | — | $0.7 V_{DD}$ | — | V_{DD} | V |
| Input Low Volt. | V_{IL} | — | V_{SS} | — | $0.3V_{DD}$ | V |
| Output High Volt. | V_{OH} | — | $0.8 V_{DD}$ | — | V_{DD} | V |
| Output Low Volt. | V_{OL} | — | V_{SS} | — | $0.2 V_{DD}$ | V |
| Supply Current | I_{DD} | $V_{DD}=3.0V$ | — | 0.3 | 1.0 | mA |

Interface Pin Function

| Pin No. | Symbol | Function |
|---------|--------|--|
| 1 | CSB | Chip select input pin |
| 2 | RSTB | Hardware reset input pin |
| 3 | A0 | It determines whether the access is related to data or command. A0="H" : Indicates that signals on D[7:0] are display data. A0="L" : Indicates that signals on D[7:0] are command. |
| 4 | RWR | Write execution control pin |
| 5 | ERD | Read execution control pin |
| 6~13 | D0~D7 | Data bus |
| 14 | VDD | Power |
| 15 | VSS | Ground |
| 16~20 | NC | No connection |
| 21 | V0 | LCD driving voltage for common circuits at negative frame |
| 22 | XV0 | XV0 is the LCD driving voltage for common circuits at positive frame |
| 23~24 | NC | No connection |
| 25 | VG | LCD driving voltage for segment circuits |
| 26~30 | NC | No connection |
| 31 | C86 | C86 selects the microprocessor type in parallel interface mode |
| 32 | PSB | This pin configures the interface to be parallel mode or serial mode. |
| 33-34 | NC | No connection |

Contour Drawing



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