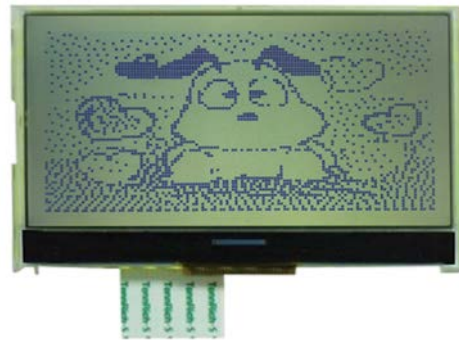


## Feature

1. COG package
2. Built-in controller ST7565S
3. +3.3 V power supply
4. 1/64 duty cycle
5. On chip LCD booster
6. Option LED B/L



## Mechanical Data

| Item             | Standard Value    | Unit |
|------------------|-------------------|------|
| Module Dimension | 80.0 x 54.0 x 9.7 | mm   |
| View Area        | 70.7 x 38.8       | mm   |
| Dot Size         | 0.48 x 0.48       | mm   |
| Dot Pitch        | 0.52 x 0.52       | mm   |

## Pin Assignment

| Pin No. | Symbol | Level | Description                                                                                                                                                                                                                                      |
|---------|--------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | VSS    | -     | GND                                                                                                                                                                                                                                              |
| 2       | VDD    | -     | Power supply for logic                                                                                                                                                                                                                           |
| 3       | VO     | -     | DC/DC voltage converter                                                                                                                                                                                                                          |
| 4       | /RES   | H/L   | When /RES is set to "L," the settings are initialized.<br>The reset operation is performed by the /RES signal level.                                                                                                                             |
| 5       | /CS    | H/L   | This is the chip select signal                                                                                                                                                                                                                   |
| 6       | RS     | H/L   | This is connect to the least significant bit of the normal MPU address bus, and it determines whether the data bits are data or a command.<br>R"H": Indicates that D0 to D7 are display data.<br>R"L": Indicates that D0 to D7 are control data. |
| 7       | /WR    | H/L   | Write signal                                                                                                                                                                                                                                     |
| 8       | /RD    | H/L   | Read signal                                                                                                                                                                                                                                      |
| 9       | DB0    | H/L   | Data bus                                                                                                                                                                                                                                         |
| 10      | DB1    | H/L   | Data bus                                                                                                                                                                                                                                         |
| 11      | DB2    | H/L   | Data bus                                                                                                                                                                                                                                         |
| 12      | DB3    | H/L   | Data bus                                                                                                                                                                                                                                         |
| 13      | DB4    | H/L   | Data bus                                                                                                                                                                                                                                         |
| 14      | DB5    | H/L   | Data bus                                                                                                                                                                                                                                         |
| 15      | DB6    | H/L   | Data bus                                                                                                                                                                                                                                         |
| 16      | DB7    | H/L   | Data bus                                                                                                                                                                                                                                         |
| 17      | A      | -     | Power supply for B/L(+)                                                                                                                                                                                                                          |
| 18      | K      | -     | Power supply for B/L(-)                                                                                                                                                                                                                          |

## Electronic Characteristics

| Item                             | Symbol  | Condition                                  | Min | Typ  | Max  | Unit              |
|----------------------------------|---------|--------------------------------------------|-----|------|------|-------------------|
| Supply Voltage For Logic         | Vdd-Vss | —                                          | 3.0 | 3.3  | 3.6  | V                 |
| Supply Voltage For LCD           | V0-XV0  | Ta=25°C                                    | 9.9 | 10.2 | 10.5 | V                 |
| Supply Current                   | Idd     | Vdd=3.3V                                   | —   | 0.5  | —    | mA                |
| LCM Surface Luminance<br>Ta=25°C | L       | I <sub>LED</sub> =120mA<br>Display all OFF | 70  | 110  | —    | cd/m <sup>2</sup> |

 Dimension

