

## Mechanical Data

| Item             | Dimension          | Unit |
|------------------|--------------------|------|
| Module dimension | 73.0 × 41.86 × 3.0 | mm   |
| View area        | 63.41 × 32.69      | mm   |
| Active area      | 61.41 × 30.69      | mm   |
| Dot Size         | 0.45 × 0.45        | mm   |
| Dot Pitch        | 0.48 × 0.48        | mm   |

## Absolute Maximum Rating

| Parameter                  | Symbol | Min  | Max | Unit | Notes |
|----------------------------|--------|------|-----|------|-------|
| Supply Voltage for Logic   | VDD    | -0.3 | 4   | V    | 1, 2  |
| Supply Voltage for Display | VCC    | 0    | 16  | V    | 1, 2  |

## Electronical Characteristics

| Symbol | Parameter  | Test Condition  | Min     | Typ | Max     | Unit |
|--------|--|---|---------|-----|---------|------|
| VCC    | Operating Voltage  | -   | 8       | 12  | 16      | V    |
| VDD    | Logic Supply Voltage   | -   | 2.4     | 2.7 | 3.5     | V    |
| VOH    | High Logic Output Level  | IOUT = 100uA, 3.3MHz  | 0.9*VDD | -   | VDD     | V    |
| VOL    | Low Logic Output Level   | IOUT = 100uA, 3.3MHz  | 0       | -   | 0.1*VDD | V    |
| VIH    | High Logic Input Level   | IOUT = 100uA, 3.3MHz  | 0.8*VDD | -   | VDD     | V    |
| VIL    | Low Logic Input Level  | IOUT = 100uA, 3.3MHz  | 0       | -   | 0.2*VDD | V    |
| ISLEEP | Sleep mode Current   | No loading  | -       | 0.2 | 5       | uA   |
| ICC    | VCC Supply Current<br>VDD=2.7V, external VCC=12V, IREF=10uA, Frame rate=110Hz, All one pattern. Display on, no loading                                     | Contrast = 7F   | -       | 700 | -       | uA   |
| IDD    | VDD Supply Current<br>VDD=2.7V, external VCC=12V, IREF=10uA, Frame rate=110Hz, All one pattern. Display on, no loading                                     | Contrast = 7F   | -       | -   | 650     | uA   |
| ISEG   | Segment Output Current<br>VDD=2.7V, VCC=12V, IREF=10uA, Frame rate=110Hz, Display on, Segment pin under test is connected with a 20K resistive load to VSS | Contrast = 7F   | 270     | 300 | 370     | uA   |
|        |  | Contrast = 5F   | -       | 225 | -       |      |
|        |  | Contrast = 3F   | -       | 150 | -       |      |
|        |  | Contrast = 1F   | -       | 75  | -       |      |
| Dev    | Segment output current uniformly VDD=2.7V, VCC=12V, IREF=10uA, Contrast=7F   | Adjacent pin  | -       | ±2  | -       | %    |
|        |  | Overall pin to pin  | -       | -   | ±3      |      |
| Vcc    | DC-DC converter output voltage   | VDD input=3V, L=22uH; R1=450Kohm; R2=50Kohm; Icc = 20mA (loading) | 10      | -   | 12      | V    |
| Pwr    | DC-DC converter output power   | VDD input=3V, L=22uH; Vcc = 12V                                   | -       | -   | 400     | mW   |

## Feature

1. 128x64 dots
2. Built-in Controller SSD1325T6R1
3. +3V power supply
4. 1/64 duty cycle
5. Interface: 6800, 8080, SPI
6. Polarizer optional

| No.  | Symbol  | I/O | Description   |               |               |        |
|------|---------|-----|---|---------------|---------------|--------|
| 1    | NC(GND) |     | Reserved Pin (Supporting Pin)   |               |               |        |
| 2    | VCC     | P   | Power Supply for OLED Panel   |               |               |        |
| 3    | VCOMH   | P   | Voltage Output High Level for COM Signal  |               |               |        |
| 4    | IREF    | I   | Current Reference for Brightness Adjustment   |               |               |        |
| 5~12 | D7~D0   | I/O | Host Data Input/Output Bus  |               |               |        |
| 13   | E/RD#   | I   | Read/Write Enable or Read   |               |               |        |
| 14   | R/W#    | I   | Read/Write Select or Write  |               |               |        |
| 15   | D/C#    | I   | Data/Command Control  |               |               |        |
| 16   | RES#    | I   | Power Reset for Controller and Driver   |               |               |        |
| 17   | CS#     | I   | Chip Select   |               |               |        |
| 18   | NC      |     | Reserved Pin<br>The N.C. pins between function pins are reserved for compatible and flexible design.    |               |               |        |
| 19   | BS2     | I   | Communicating Protocol Select<br>These pins are MCU interface selection input. See the following table: |               |               |        |
|      |         |     |   | 68XX-parallel | 80XX-parallel | Serial |
|      |         |     | BS1   | 0             | 1             | 0      |
|      |         |     | BS2   | 1             | 1             | 0      |
| 21   | Vdd     | P   | Power Supply for Logic Circuit  |               |               |        |
| 22   | NC      |     | Reserved Pin  |               |               |        |
| 23   | NC      |     | The N.C. pins between function pins are reserved for compatible and flexible design.                    |               |               |        |
| 24   | NC      |     |   |               |               |        |
| 25   | NC      |     |   |               |               |        |
| 26   | NC      |     |   |               |               |        |
| 27   | NC      |     |   |               |               |        |
| 28   | NC      |     |   |               |               |        |
| 29   | Vss     | P   | Ground of OLED System   |               |               |        |
| 30   | VSL     | 0   | Voltage Output Low Level for SEG Signal   |               |               |        |

## RET012864Q OLED Graphic 128x64 dots

### Dimension drawing

