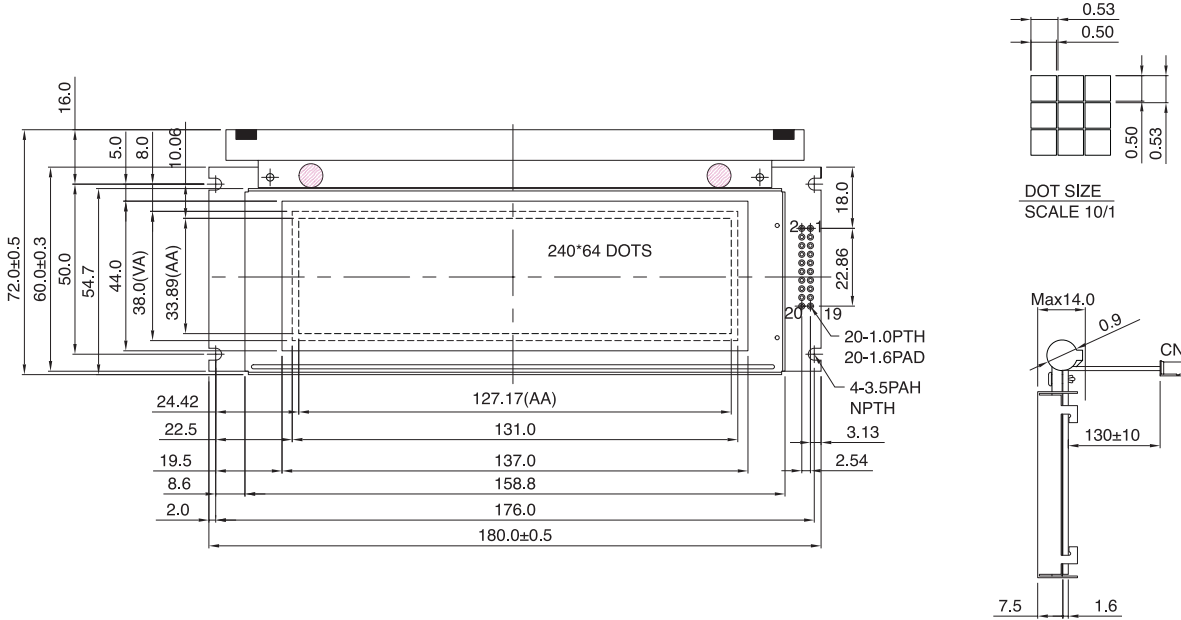




Graphic 240x64 dots **WG24064E**

Dimension drawing



Graphic type

Feature

1. Built-in controller (T6963C)
2. 1/64 duty cycle
3. Built-in N/V (option)

Mechanical Data

| Item | Standard Value | Unit |
|------------------|----------------------|------|
| Module Dimension | 180.0x72.0x14.0(MAX) | mm |
| Viewing Area | 131.0x38.0 | mm |
| Dot Size | 0.5x0.5 | mm |
| Dot Pitch | 0.53x0.53 | mm |
| Mounting hole | 176x50 | mm |

| Pin NO | Symbol | Function |
|--------|--------|--|
| 1 | FGND | Frame GND (connected to bezel) |
| 2 | Vss | GND |
| 3 | Vdd | Power supply for logic circuit |
| 4 | VEE/Vo | Contrast Adjustment |
| 5 | WR | Data write |
| 6 | RD | Data read |
| 7 | CE | Chip enable |
| 8 | C/D | Code/Data |
| 9 | NC | No connection |
| 10 | RES | Controller reset |
| 11 | DB0 | Data bus line |
| 12 | DB1 | Data bus line |
| 13 | DB2 | Data bus line |
| 14 | DB3 | Data bus line |
| 15 | DB4 | Data bus line |
| 16 | DB5 | Data bus line |
| 17 | DB6 | Data bus line |
| 18 | DB7 | Data bus line |
| 19 | FS | Font selection FS="H", 6x8 character font FS="L", 8x8 character font |
| 20 | MS | Reverse |

Absolute Maximum Rating

| Item | Symbol | Standard Value | | | Unit |
|---------------|---------|----------------|------|------|------|
| | | min. | typ. | max. | |
| Power Supply | VDD-VSS | 4.75 | 5.0 | 5.25 | V |
| Input Voltage | VI | -0.3 | --- | VDD | V |

Note : VSS=0 Volt, VDD=5.0 Volt.

Electronical Characteristics

| Item | Symbol | Condition | Standard Value | | | Unit |
|--|--------|------------------|--------------------|------|-----------------|------|
| | | | min. | typ. | max. | |
| Input Voltage | VDD | L level | --- | --- | 0.3 | v |
| | VIO | H level | 0.7V _{DD} | --- | V _{DD} | v |
| Supply Current | IDD | VDD=5V | --- | 18.5 | 21.0 | mA |
| Recommended LC Driving Voltage for Normal Temp. Version module | VDD-Vo | -20°C | 13.0 | 13.5 | 14.1 | V |
| | | 0°C | 12.5 | 13.1 | 13.7 | |
| | | 25°C | 12.1 | 12.7 | 13.3 | |
| | | 50°C | 11.1 | 12.3 | 13.0 | |
| LED Forward Voltage | VF | 25°C | --- | 4.2 | 4.6 | V |
| | | 25°C | --- | 450 | 900 | mA |
| LED Forward Current | IF | 25°C | --- | 215 | 610 | mA |
| | IF | 25°C | --- | --- | 5.0 | |
| EL | IEL | Vel=110VAC;400Hz | --- | --- | 5.6 | mA |

