

Mechanical Data

| Item | Standard Value | Unit |
|------------------|----------------|------|
| Module Dimension | 170.0x103.5 | mm |
| Viewing Area | 132.0x76.0 | mm |
| Dot Size | 0.47x0.47 | mm |
| Dot Pitch | 0.5x0.5 | mm |
| Mounting hole | 162.0 x 85.0 | mm |

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 | 0.7V _{DD} | --- | V _{DD} | V |
| | VIO | H level | --- | --- | 0.3V _{DD} | V |
| Supply Current | IDD | VDD=5V | --- | 23 | --- | mA |
| Recommended LC Driving | | 0°C | 19.1 | 19.5 | 20.1 | |
| Voltage for Normal Temp. Version module | VDD-V0 | 25°C | 18.1 | 18.5 | 19.1 | V |
| | | 50°C | 17.1 | 17.5 | 18.1 | |
| LED Forward Voltage | VF | 25°C | --- | --- | --- | V |
| LED Forward Current | IF | 25°C | --- | --- | --- | mA |
| CCFL | VF | 25°C | --- | 325 | 580 | V _{rms} |
| | IF | 25°C | --- | --- | 5.0 | mA |
| EL | IEL | Vel=110VAC;400Hz | --- | --- | 5.0 | mA |

Feature

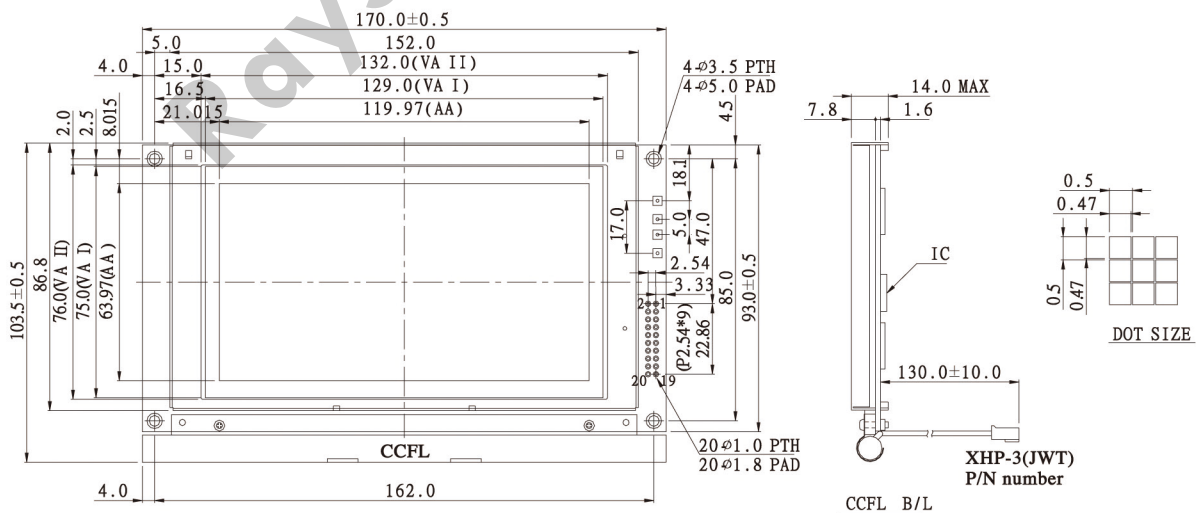
1. Built-in controller RA6963
2. 1/128 duty cycle
3. Built-in N/V (option)
4. 24 pins optional

| Pin NO | Symbol | Function |
|--------|------------------|--|
| 1 | FGND | Frame GEN(connected to bezel) |
| 2 | Vss | GND |
| 3 | Vdd | Power supply for logic circuit |
| 4 | VO | Contrast Adjustment |
| 5 | \overline{WR} | Data write |
| 6 | \overline{RD} | Data read |
| 7 | \overline{CE} | Chip enable |
| 8 | C/D | Code/Data |
| 9 | NC/Vee | No connection/Negative Voltage output |
| 10 | \overline{RST} | 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 | RV | Reverse |

Graphic type

RG240128A Graphic 240x128 dots

Dimension drawing



VA I is effective area of LCD.
VA II is window of bezel.