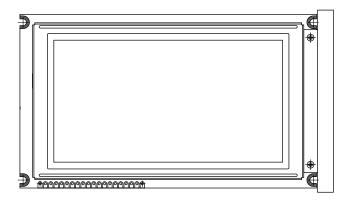


240 x 128 Graphic LCD



| MECHANICAL DATA | | | | |
|------------------|---------------------|----|--|--|
| ITEM | ITEM STANDARD VALUE | | | |
| Module Dimension | 140.0 x 82.0 | | | |
| Viewing Area | 114.0 x 64.0 | | | |
| Dot Size | 0.43 x 0.43 | mm | | |
| Dot Pitch | 0.45 x 0.45 | mm | | |
| Mounting Hole | 137.0 x 74.5 | | | |
| Character Size | N/a | | | |

FEATURES

• Type: Graphic

• Display format: 240 x 128 dots

• Built-in controller: RA8820 (or equivalent)

• Duty cycle: 1/128

• + 5 V power supply (2.7 V to 5.0 V selective)

• Built-in N.V.

· Chinese version

• Controller RA8822 optional (LCD-240H128S)

• Compliant to RoHS directive 2002/95/EC

| ABSOLUTE MAXIMUM RATINGS | | | | | | |
|--------------------------|------------------------------------|------|------|----------|------|--|
| ITEM | SYMBOL | STAN | шит | | | |
| IIEW | STINIBUL | MIN. | TYP. | MAX. | UNIT | |
| Power Supply | V _{DD} to V _{SS} | 4.75 | 5.0 | 5.25 | V | |
| Input Voltage | VI | 0.3 | - | V_{DD} |] | |

Note

• $V_{SS} = 0 \text{ V}, V_{DD} = 5.0 \text{ V}$

| ELECTRICAL CHARACTERISTICS | | | | | | | |
|--|---|--|---------------------|------|---------------------|-------------------|--|
| ITEM | SYMBOL | COMPITION | STANDARD VALUE | | | | |
| | | CONDITION | MIN. | TYP. | MAX. | UNIT | |
| Input Voltage | V _{DD} L level 0.7 V _{DD} | | 0.7 V _{DD} | - | V _{DD} | V | |
| | V _{IO} | H level | - | = | 0.3 V _{DD} | 7 V | |
| Supply Current | I _{DD} | V _{DD} = + 5 V | 0 | 45 | 50 | mA | |
| Recommended LC Driving Voltage for Normal Temperature Version Module | V_{DD} to V_0 | - 20 °C | - | - | - | | |
| | | 0 °C | 20.3 | 21.4 | 22.5 | | |
| | | 25 °C | 18.0 | 19.2 | 20.2 | V | |
| | | 50 °C | 17.8 | 18.9 | 20.0 |] | |
| | | 70 °C | - | - | - | 1 | |
| LED Forward Voltage | V _F | 25 °C | - | 4.2 | - | V | |
| LED Forward Current | I _F | 25 °C | - | 920 | 1800 | mA | |
| CCFL Forward Voltage | V _F | 25 °C | - | 250 | 590 | V _{RMS} | |
| CCFL Forward Current | I _F | 25 °C | - | - | 5.5 | mA _{RMS} | |
| EL Power Supply Current | I _{EL} | V _{EL} = 110 V _{AC} , 400 Hz | - | - | 5.0 | mA | |

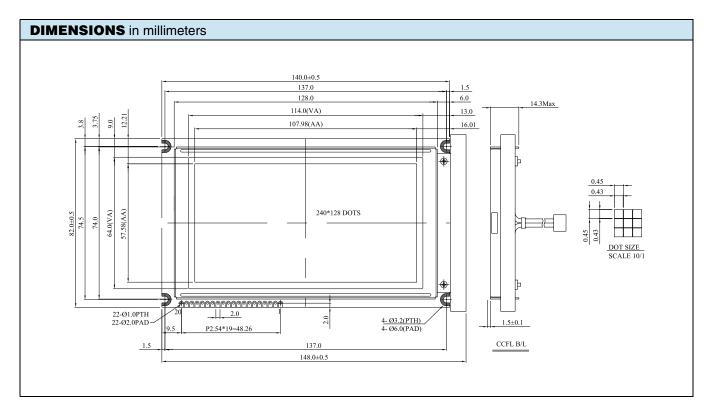
| OPTIONS | | | | | | | | | |
|---------|---------------|---------------|-------------|-------------|--------------|------|------|-------|------|
| | PROCESS COLOR | | | | | | BACK | LIGHT | |
| TN | STN Gray | STN Yellow | STN Blue | FSTN B&W | STN Color | None | LED | EL | CCFL |
| | Х | х | Х | Х | | Х | х | х | х |

For detailed information, please see the "Product Numbering System" document.

240 x 128 Graphic LCD



| INTERFACE PIN FUNCTION | | | | | |
|------------------------|-----------------|--|--|--|--|
| PIN NO. | SYMBOL | FUNCTION | | | |
| 1 | V _{SS} | Ground | | | |
| 2 | V _{DD} | Power supply for logic | | | |
| 3 | V ₀ | Operating voltage LCD driving | | | |
| 4 | C/D | Command/data read/write | | | |
| 5 | RD | 8080 family: Read signal; 6800 family: Enable signal | | | |
| 6 | WR | 8080 family: Write signal; 6800 family: R/W signal | | | |
| 7 | DB0 | Data bus line | | | |
| 8 | DB1 | Data bus line | | | |
| 9 | DB2 | Data bus line | | | |
| 10 | DB3 | Data bus line | | | |
| 11 | DB4 | Data bus line | | | |
| 12 | DB5 | Data bus line | | | |
| 13 | DB6 | Data bus line | | | |
| 14 | DB7 | Data bus line | | | |
| 15 | CS | Chip select | | | |
| 16 | RES | Reset | | | |
| 17 | V _{EE} | Negative voltage output | | | |
| 18 | BUSY | RA8820 busy | | | |
| 19 | INT | Programable interrupt for 8802 | | | |
| 20 | A | Power supply for B/L | | | |





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