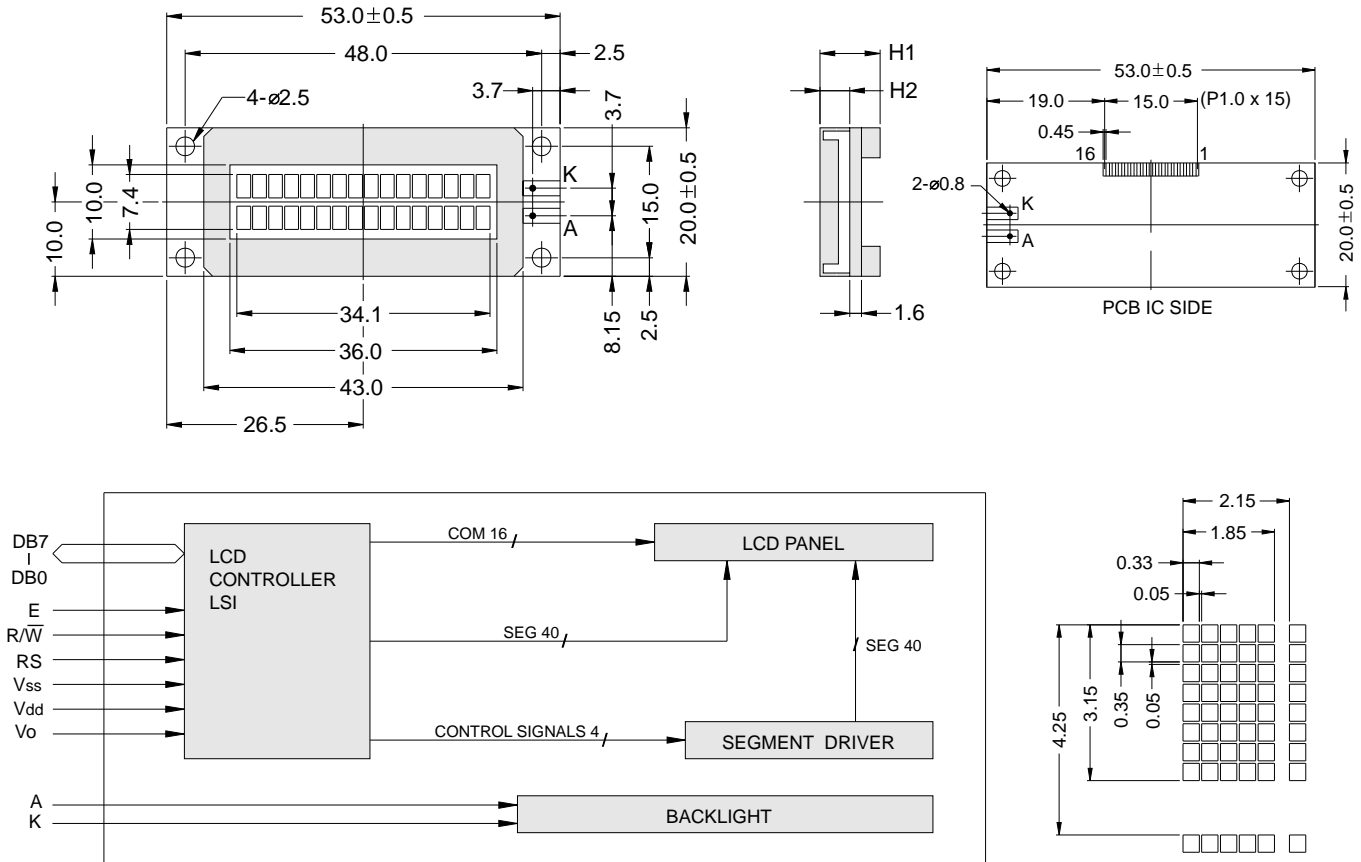




OUTLINE DIMENSION & BLOCK DIAGRAM



The tolerance unless classified $\pm 0.3\text{mm}$

| MECHANICAL SPECIFICATION | | | |
|--------------------------|-------------|-----------|-----------|
| Overall Size | 53.0 x 20.0 | Module | H2 / H1 |
| View Area | 36.0 x 10.0 | W / O B/L | 4.0 / 8.1 |
| Dot Size | 0.33 x 0.35 | EL B/L | - / - |
| Dot Pitch | 0.38 x 0.40 | LED B/L | 4.0 / 8.1 |

| PIN ASSIGNMENT | | |
|----------------|--------|------------------------------|
| Pin no. | Symbol | Function |
| 1 | Vss | Power supply(GND) |
| 2 | Vdd | Power supply(+) |
| 3 | Vo | Contrast Adjust |
| 4 | RS | Register select signal |
| 5 | R/W | Data read / write |
| 6 | E | Enable 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 | A | Power supply for LED B/L (+) |
| 16 | K | Power supply for LED B/L (-) |

| ABSOLUTE MAXIMUM RATING | | | | | | | | | |
|----------------------------------|-----------|-----------|------|---------|-------|-------|-----|-----|---|
| Item | Symbol | Condition | Min. | Max. | Units | | | | |
| Supply for logic voltage | Vdd-Vss | 25°C | -0.3 | 7 | V | | | | |
| LCD driving supply voltage | Vdd-Vee | 25°C | -0.3 | 13 | V | | | | |
| Input voltage | Vin | 25°C | -0.3 | Vdd+0.3 | V | | | | |
| ELECTRICAL CHARACTERISTICS | | | | | | | | | |
| Item | Symbol | Condition | Min. | Typical | Max. | Units | | | |
| Power supply voltage | Vdd-Vss | 25°C | 2.7 | - | 5.5 | V | | | |
| LCD operation voltage | Vop | Top | N | W | N | W | N | W | V |
| | | -20°C | - | 7.1 | - | 7.5 | - | 7.9 | V |
| | | 0°C | 4.8 | - | 5.1 | - | 5.4 | - | V |
| | | 25°C | 4.4 | 6.1 | 4.7 | 6.4 | 5 | 6.7 | V |
| | | 50°C | 3.9 | - | 4.2 | - | 4.5 | - | V |
| | | 70°C | - | 5.7 | - | 6 | - | 6.3 | V |
| LCM current consumption (No B/L) | Idd | Vdd=5V | - | 2 | 3 | mA | | | |
| Backlight current consumption | LED/edge | VB/L=4.2V | - | 20 | - | mA | | | |
| | LED/array | VB/L=4.2V | - | - | - | mA | | | |

REMARK

LCD option: STN, TN, FSTN

Backlight Option: LED,EL Backlight feature, other Specs not available on catalog is under request.

