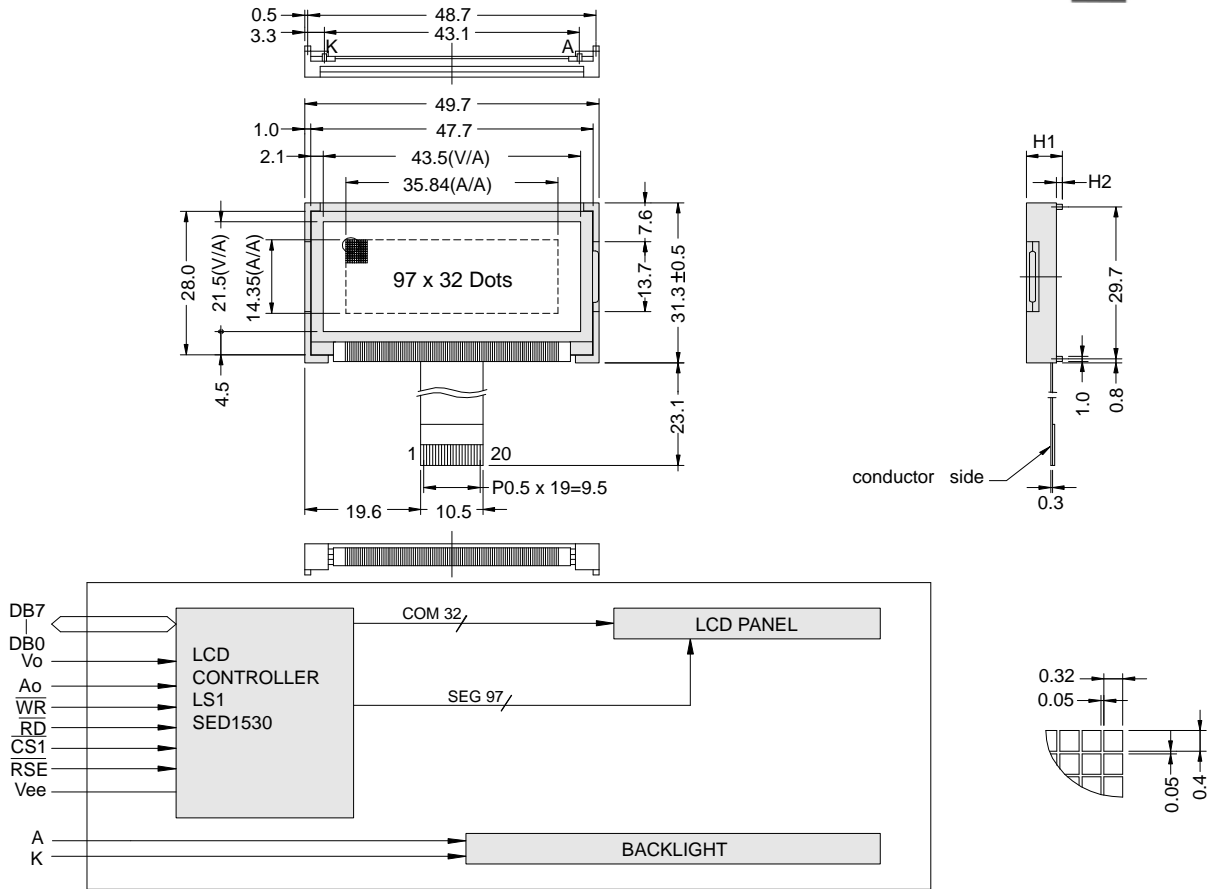




OUTLINE DIMENSION & BLOCK DIAGRAM



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

| MECHANICAL SPECIFICATION | | | |
|--------------------------|-------------|---------|-----------|
| Overall Size | 49.7 x 31.3 | Module | H2 / H1 |
| View Area | 43.5 x 21.5 | W/O B/L | - / - |
| Dot Size | 0.32 x 0.40 | EL B/L | - / - |
| Dot Pitch | 0.37 x 0.45 | LED B/L | 5.1 / 6.1 |

| PIN ASSIGNMENT | | |
|----------------|-------------------------|------------------------------|
| Pin no. | Symbol | Function |
| 1 | Vss | Power supply(GND) |
| 2 | Vdd | Power supply(+) |
| 3 | Vo | Contrast Adjust |
| 4 | A0 | Command / Data select |
| 5 | $\overline{\text{WR}}$ | Data write |
| 6 | $\overline{\text{RD}}$ | Data read |
| 7-14 | DB0-DB7 | Data bus line |
| 15 | $\overline{\text{CS1}}$ | Chip select driver 1 |
| 16 | $\overline{\text{RST}}$ | Reset |
| 17 | Vee | DC / DC booster output |
| 18 | NC | No connection |
| 19 | A | Power supply for LED B/L (+) |
| 20 | 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 | 7.0 | V | | | |
| LCD driving supply voltage | Vdd-Vee | 25°C | -0.3 | 18.0 | 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 | V | |
| | | -20°C | - | 6 | - | 6.4 | - | V |
| | | 0°C | 5.3 | - | 5.6 | - | 5.9 | V |
| | | 25°C | 5.1 | 5.8 | 5.4 | 6.2 | 5.7 | V |
| | | 50°C | 4.4 | - | 4.7 | - | 5 | V |
| 70°C | - | 5.6 | - | 5.9 | - | 6.2 | V | |
| LCM current consumption (No B/L) | Idd | Vdd=5V | - | 0.5 | 1 | mA | | |
| Backlight current consumption | LED/edge | VB/L=2.1V | - | 80 | - | 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.

