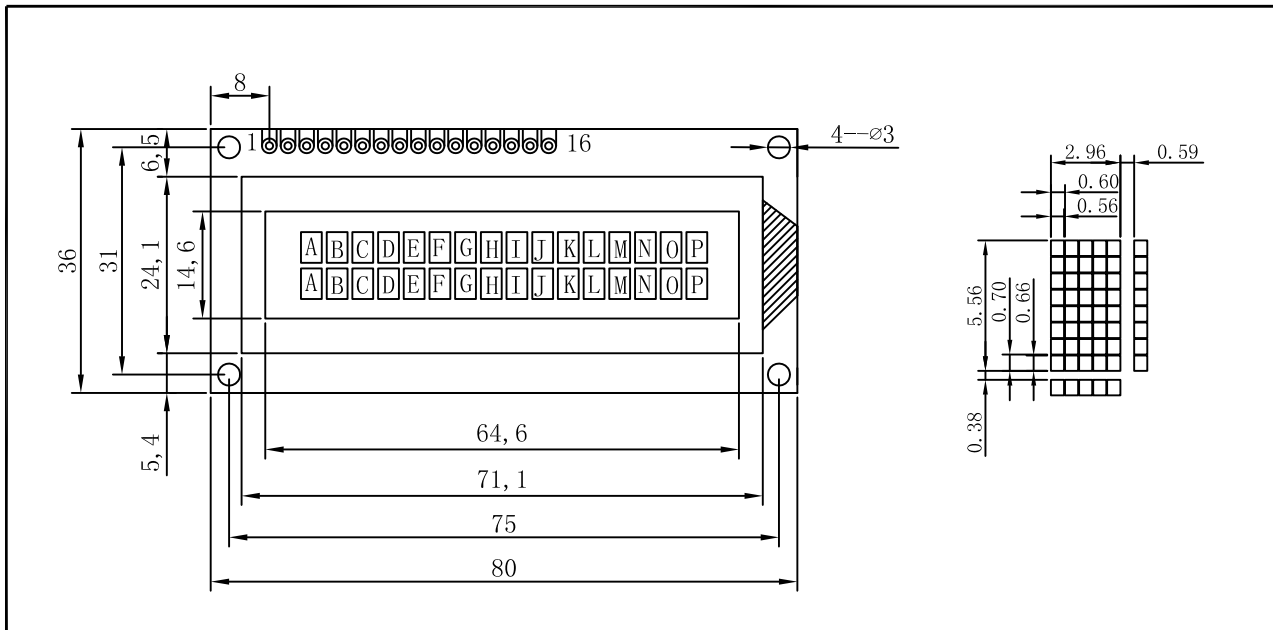
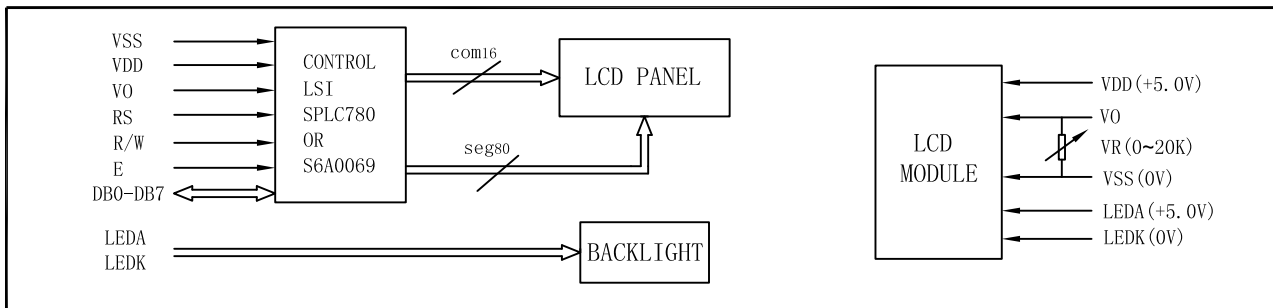


## OUTLINE DIMENSIONS



## BLOCK DIAGRAM &amp; POWER SUPPLY



## MECHANICAL SPECIFICATIONS &amp; FEATURE

| LTEM                  | NORMAL DIMENSIONS (MM) | FEATURE               |                                                 |
|-----------------------|------------------------|-----------------------|-------------------------------------------------|
| MODULE SIZE (W*H*T)   | 80.0 X 36.0 X 12.5     | LCD TYPE              | STN TN HTN FSTN                                 |
| VIEW AREA (W*H)       | 64.5 X 14.6            | LCD COLOUR            | STN: YELLOW-GREEN, GRAY, OTHER: GRAY            |
| CHARACTER PITCH (W*H) | 3.55 X 5.94            | VIEW ANGLE            | 6 O' CLOCK, 12 O' CLOCK                         |
| CHARACTER SIZE (W*H)  | 2.96 X 5.56            | DISPLAY TYPE          | POSITIVE TYPE, NEGATIVE TYPE                    |
| CHARACTER FONT        | 5 X 8                  | REAR POLARIZER        | TRANSMISSIVE, REFLECTIVE, TRANSFLECTIVE         |
| DOT PITCH (W*H)       | 0.60 X 0.70            | OPERATING TEMPERATURE | -10 °C ~ 60 °C -20 °C ~ 70 °C                   |
| DOT SIZE (W*H)        | 0.56 X 0.66            | BACKLIGHT             | LED: YELLOW EL: GREEN, BLUE-GREEN, BLUE WITHOUT |

## ELECTRICAL CHARACTERISTICS

| LTEM                         | SYMBOL | TEST CONDITION     | MIN | TYP | MAX | UNIT |
|------------------------------|--------|--------------------|-----|-----|-----|------|
| OPERATING VOLTAGE            | VDD    | Ta=25 °C           | --- | 5.0 | --- | V    |
| OPERATING VOLTAGE FOR LCD    | VLCD   | Ta=25 °C           | --- | 4.7 | --- | V    |
| SUPPLY CURRENT               | IDD    | Ta=25 °C, VDD=5.0V | --- | 1.5 | 2.5 | MA   |
| SUPPLY CURRENT FOR BACKLIGHT | IF     | Ta=25 °C, VF=3.0V  | --- | 18  | --- | MA   |

## INTERFACE PIN CONNECTIONS

| PIN NO | SYMBOL  | LEVEL | DESCRIPTION                                                    |
|--------|---------|-------|----------------------------------------------------------------|
| 1      | VSS     | ---   | GROUND FOR LOGIC                                               |
| 2      | VDD     | ---   | POWER SUPPLY FOR LOGIC                                         |
| 3      | VO      | ---   | POWER SUPPLY FOR LCD DRIVE                                     |
| 4      | RS      | H/L   | REGISTER SELECTION (H: DATA REGISTER, L: INSTRUCTION REGISTER) |
| 5      | R/W     | H/L   | READ/WRITE SELECTION (H: READ, L: WRITE)                       |
| 6      | E       | H/L   | ENABLE SIGNAL FOR LCM                                          |
| 7-14   | DB0-DB7 | H/L   | DATA BUS LINES                                                 |
| 15     | LEDA    | ---   | POWER SUPPLY FOR BACKLIGHT (+)                                 |
| 16     | LEDK    | ---   | POWER SUPPLY FOR BACKLIGHT (-)                                 |

## REMARK

OPERATING VOLTAGE : 5.0V OR 3.0V

CGROM FONT OPTION: ENGLISH JAPANESE RUSSIAN ETC