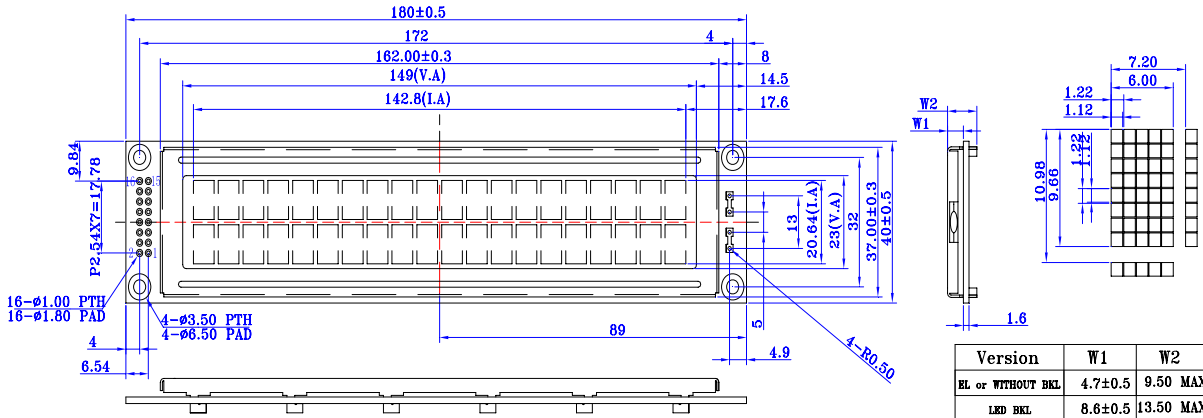
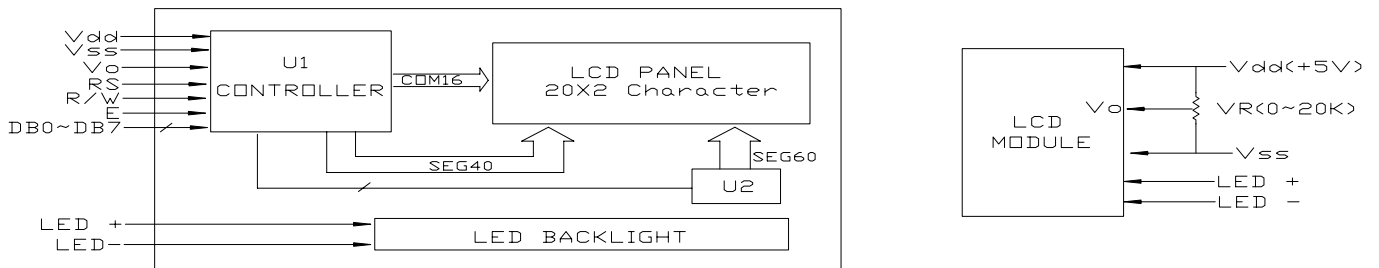




◆ **OUTLINE DIMENSION**



◆ **BLOCK DIAGRAM & POWER SUPPLY**



◆ **MECHANICAL SPEC. & FEATURES**

| Item                 | Dimension(mm)       | Features        |   |
|----------------------|---------------------|-----------------|---|
| Module Size(W×H×T)   | 180.0×40.0×9.5/13.5 | LC Fluid        | STN (Yellow-green, Gray, Blue), FSTN    |
| Viewing Area(W×H)    | 149.0×23.0          | Polarizer       | Reflective, Transflective, Transmissive |
| Dot Size(W×H)        | 1.12×1.12           | View Angle      | 6:00 o'clock or 12:00 o'clock           |
| Dot Pitch(W×H)       | 1.22×1.22           | Display Type    | Positive or Negative                    |
| Character Size(W×H)  | 6.00×9.66           | Backlight       | LED (Optional)                          |
| Character Pitch(W×H) | 7.20×10.98          | Operating Temp. | 0°C~50°C or -20°C~70°C                  |
|                      |                     | Controller      | S6A0069 or Equivalent                   |

◆ **INTERFACE PIN CONNECTIONS**

| Pin No. | Symbol | Function                                   | Pin No. | Symbol  | Function       |
|---------|--------|--|---------|---------|----------------|
| 1       | Vss    | Ground for logic                           | 6       | E       | Enable signal  |
| 2       | Vdd    | Power supply for logic                     | 7~14    | DB0~DB7 | Data bus lines |
| 3       | V0     | Power supply for LCD                       | 15      | A       | BKL +          |
| 4       | RS     | Register selection (H:Data, L:Instruction) | 16      | K       | BKL -          |
| 5       | R/W    | Read/Write selection (H: R, L: W)          |         |         |                |

◆ **ELECTRICAL CHARACTERISTICS**

| Item                      | Symbol | Test Condition    | Min. | Typ. | Max. | Unit |
|---------------------------|--------|-------------------|------|------|------|------|
| Operating Voltage         | Vdd    | Ta=25°C           | ---  | 5.0  | ---  | V    |
| Operating Voltage for LCD | Vlcd   | Ta=25°C           | ---  | 4.5  | ---  | V    |
| Supply Current            | Idd    | Ta=25°C, Vdd=5.0V | ---  | 2.0  | 3.0  | mA   |
| Supply Voltage for LED    | Vf     | Ta=25°C, R=6.8Ω   | ---  | 4.2  | ---  | V    |
| Supply Current for LED    | If     | Ta=25°C, Vf=4.2V  | ---  | 400  | ---  | mA   |