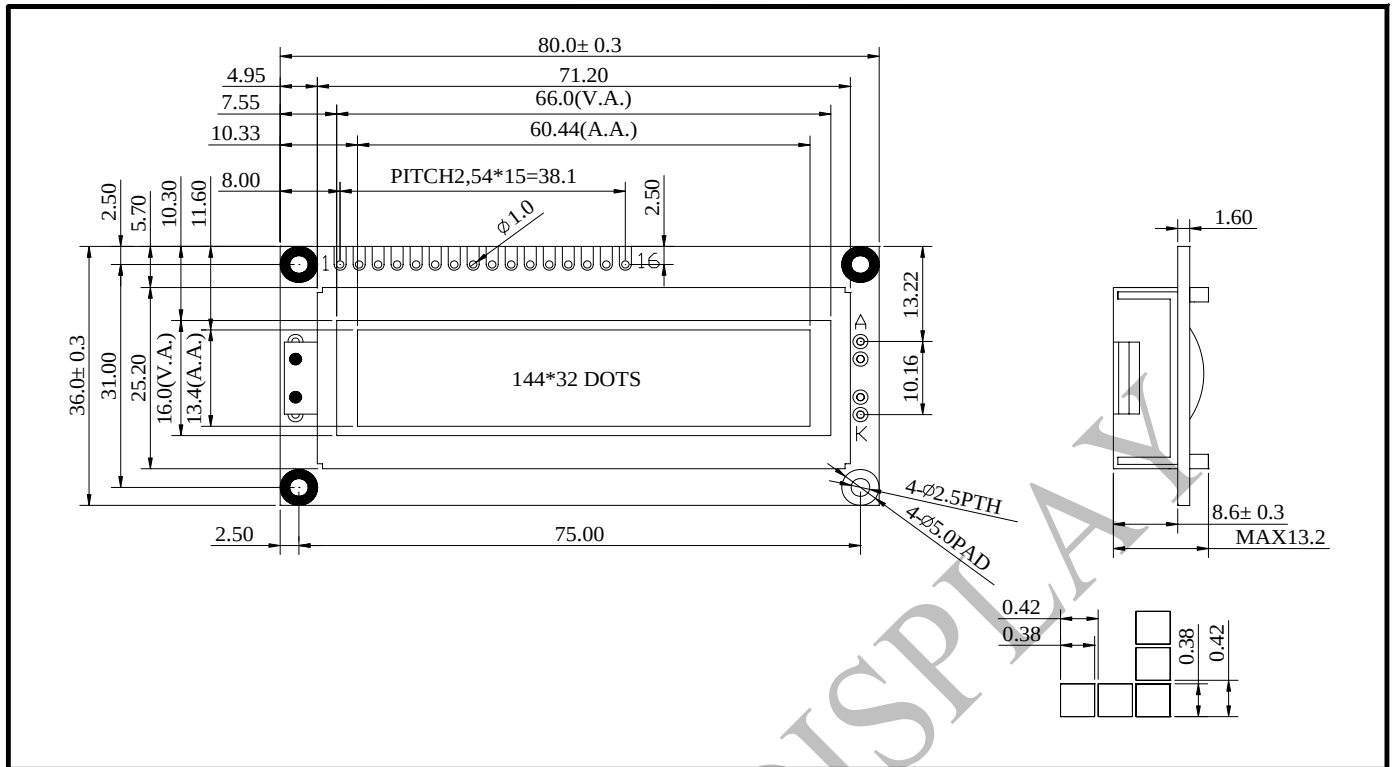




## PIN CONNECTIONS

| Pin          | Symbol          | Level | Function                       |
|--------------|-----------------|-------|--------------------------------|
| 1            | V <sub>SS</sub> | 0V    | GND                            |
| 2            | V <sub>DD</sub> | +5V   | Power supply for logic         |
| 3            | V <sub>O</sub>  | -     | Operating voltage for LCD      |
| 4            | A0              | H/L   | "H" Data, "L" Instruction code |
| 5            | R/W             | H/L   | "H" Read, "L" Write            |
| 6            | E               | H/L   | Enable signal                  |
| 7<br> <br>14 | DB0<br> <br>DB7 | H/L   | Data bus line                  |
| 15           | LEDA            | +5V   | Power supply for LED backlight |
| 16           | LEDK            | 0V    |                                |

## NOTES:

1. Built-in ST7920 controller
2. Yellow green/blue mode optional

## MECHANICAL DATA

| Item                    | Nominal Dimensions | Unit |
|-------------------------|--------------------|------|
| Module Size (W x H x T) | 80.0X36.0X13.2     | mm   |
| Viewing Area (W x H)    | 66.0X16.0          | mm   |
| Dot Pitch (W x H)       | 0.42X0.42          | mm   |
| Dot Size (W x H)        | 0.38X0.38          | mm   |

## ABSOLUTE MAXIMUM RATINGS

| Item                   | Symbol                           | Min. | Max.                 | Unit |
|------------------------|----------------------------------|------|----------------------|------|
| Supply Voltage (Logic) | V <sub>DD</sub> -V <sub>SS</sub> | -0.3 | 7.0                  | V    |
| Supply Voltage (LCD)   | V <sub>DD</sub> -V <sub>O</sub>  | -0.3 | 13.5                 | V    |
| Input Voltage          | V <sub>I</sub>                   | -0.3 | V <sub>DD</sub> +0.3 | V    |
| Operating Temp.        | T <sub>OPR</sub>                 | -20  | 70                   | °C   |
| Storage Temp.          | T <sub>STG</sub>                 | -30  | 80                   | °C   |

## ELECTRICAL CHARACTERISTICS (V<sub>DD</sub>=5.0V, T<sub>a</sub>=25°C)

| Item                | Symbol                          | Min. | Typ. | Max.            | Unit |
|---------------------|---------------------------------|------|------|-----------------|------|
| Input High Voltage  | V <sub>IH</sub>                 | 2.0  | -    | V <sub>DD</sub> | V    |
| Input Low Voltage   | V <sub>IL</sub>                 | -0.3 | -    | 0.6             | V    |
| Output High Voltage | V <sub>OH</sub>                 | 2.4  | -    | V <sub>DD</sub> | V    |
| Output Low Voltage  | V <sub>OL</sub>                 | 0    | -    | 0.4             | V    |
| Supply Current      | I <sub>DD</sub>                 | -    | 1.4  | 1.8             | mA   |
| LCD Driving Voltage | V <sub>O</sub> -V <sub>SS</sub> | -    | 4.7  | -               | V    |

## LED BACKLIGHT SPECIFICATIONS (T<sub>a</sub>=25°C)

| Item         | Forward Voltage | Forward Current |
|--------------|-----------------|-----------------|
| YELLOW-GREEN | 4.1V            | 100mA           |
| White        | 3.1V            | 30mA            |