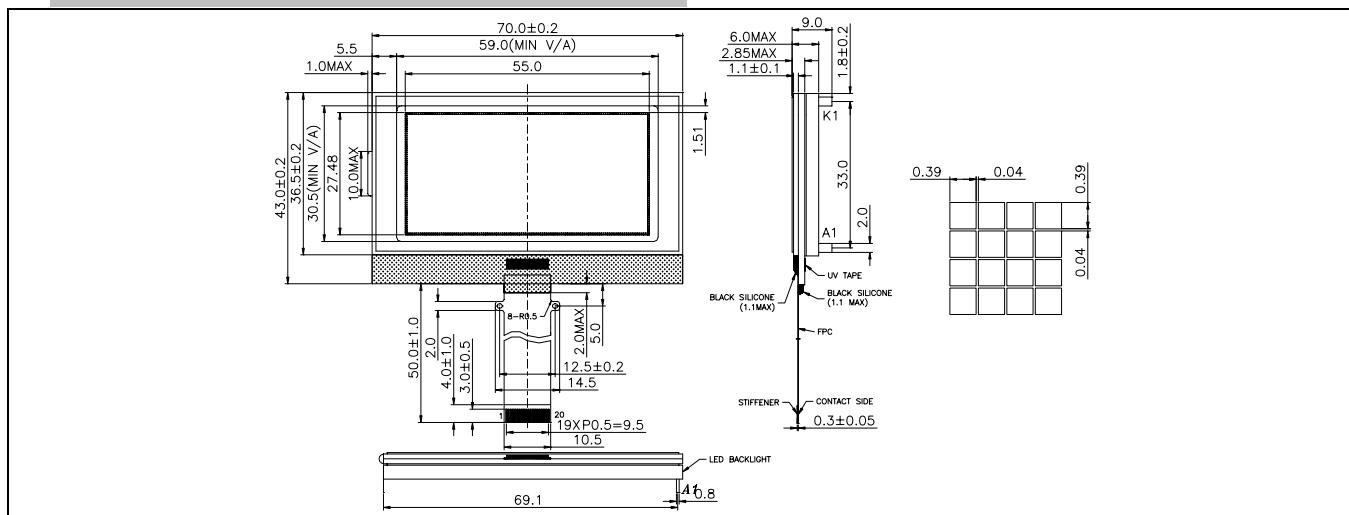


# HE125XX50

128 X 64 Dots

## 1. EXTERNAL DIMENSION AND DISPLAY PATTERN



## 2. MECHANICAL DATA

| ITEM                 | SPECIFICATION | UNIT |
|----------------------|---------------|------|
| Module Size (W×H×T)  | 70.0×43.0×6.0 | mm   |
| Viewing Area (W×H)   | 59.0×30.5     | mm   |
| Number of Dots (W×H) | 128×64        | dots |
| Dot Pitch (W×H)      | 0.43×0.43     | mm   |
| Dot Size (W×H)       | 0.39×0.39     | mm   |

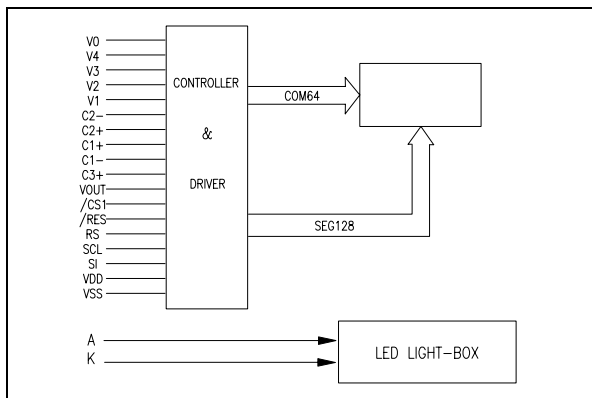
## 3. ELECTRICAL CHARACTERISTICS (Ta=25°C)

| ITEM                   | SYMBOL                            | CONDITION                    | SPEC. VALUE               |                    |                    | UNIT               |   |
|------------------------|-----------------------------------|------------------------------|---------------------------|--------------------|--------------------|--------------------|---|
|                        |                                   |                              | MIN.                      | TYP.               | MAX.               |                    |   |
| Supply Voltage (Logic) | V <sub>DD</sub> - V <sub>SS</sub> |                              | 2.7                       | 3.0                | 3.3                | V                  |   |
| Supply Current (Logic) | I <sub>DD</sub>                   | V <sub>DD</sub> =5V          | -                         | 120                | 180                | μA                 |   |
| Input Voltage          | "HIGH"                            | V <sub>IH</sub>              | 0.8V <sub>DD</sub>        | -                  | V <sub>DD</sub>    | V                  |   |
|                        | "LOW"                             | V <sub>IL</sub>              | V <sub>SS</sub>           | -                  | 0.2V <sub>DD</sub> | V                  |   |
| Output Voltage         | "HIGH"                            | V <sub>OH</sub>              | -I <sub>OH</sub> =0.205mA | 0.8V <sub>DD</sub> | -                  | V <sub>DD</sub>    | V |
|                        | "LOW"                             | V <sub>OL</sub>              | I <sub>OL</sub> =1.6mA    | V <sub>SS</sub>    | -                  | 0.2V <sub>DD</sub> | V |
| LCD Operating Voltage  | V <sub>DD</sub> - V <sub>o</sub>  | V <sub>DD</sub> =5V, Ta=25°C | -                         | 9.0                | -                  | V                  |   |

## 4. PIN CONFIGURATION

| PIN | SYMBOL | SIGNAL DESCRIPTION                                   | PIN | SYMBOL           | SIGNAL DESCRIPTION                                   |
|-----|--------|--|-----|------------------|--|
| 1   | NC     | No Connection  | 11  | C3+              | Cap. 3 Positive Connection Pin for Voltage Converter |
| 2   | V0     | LCD Driver Supply Voltage                            | 12  | V <sub>out</sub> | Voltage Converter Input/Output Pin                   |
| 3   | V4     | LCD Driver Supply Voltage                            | 13  | V <sub>SS</sub>  | GND (0V)   |
| 4   | V3     | LCD Driver Supply Voltage                            | 14  | V <sub>DD</sub>  | Power Supply   |
| 5   | V2     | LCD Driver Supply Voltage                            | 15  | SI               | Serial Input Data                                    |
| 6   | V1     | LCD Driver Supply Voltage                            | 16  | SCL              | Serial Input Clock                                   |
| 7   | C2-    | Cap. 2 Negative Connection Pin for Voltage Converter | 17  | RS               | Register Select Input Pin                            |
| 8   | C2+    | Cap. 2 Positive Connection Pin for Voltage Converter | 18  | /RES             | Reset Signal   |
| 9   | C1+    | Cap. 1 Positive Connection Pin for Voltage Converter | 19  | /CS              | Chip Select Signal                                   |
| 10  | C1-    | Cap. 1 Negative Connection Pin for Voltage Converter | 20  | NC               | No Connection  |

## 5. BLOCK DIAGRAM



## 6. BACKLIGHTING CHARACTERISTICS (Ta=25°C)

### LED

| ITEM              | SYMBOL           | CONDITION              | MIN | TYP  | MAX | UNIT              |
|-------------------|------------------|------------------------|-----|------|-----|-------------------|
| Supply Voltage    | V <sub>LED</sub> | -                      | -   | -    | -   | V                 |
| Power Consumption | P <sub>LED</sub> | I <sub>F</sub> = 60 mA | -   | 0.27 | -   | W                 |
| Luminous          | I <sub>v</sub>   | I <sub>F</sub> = 60 mA | -   | 50   | -   | cd/m <sup>2</sup> |