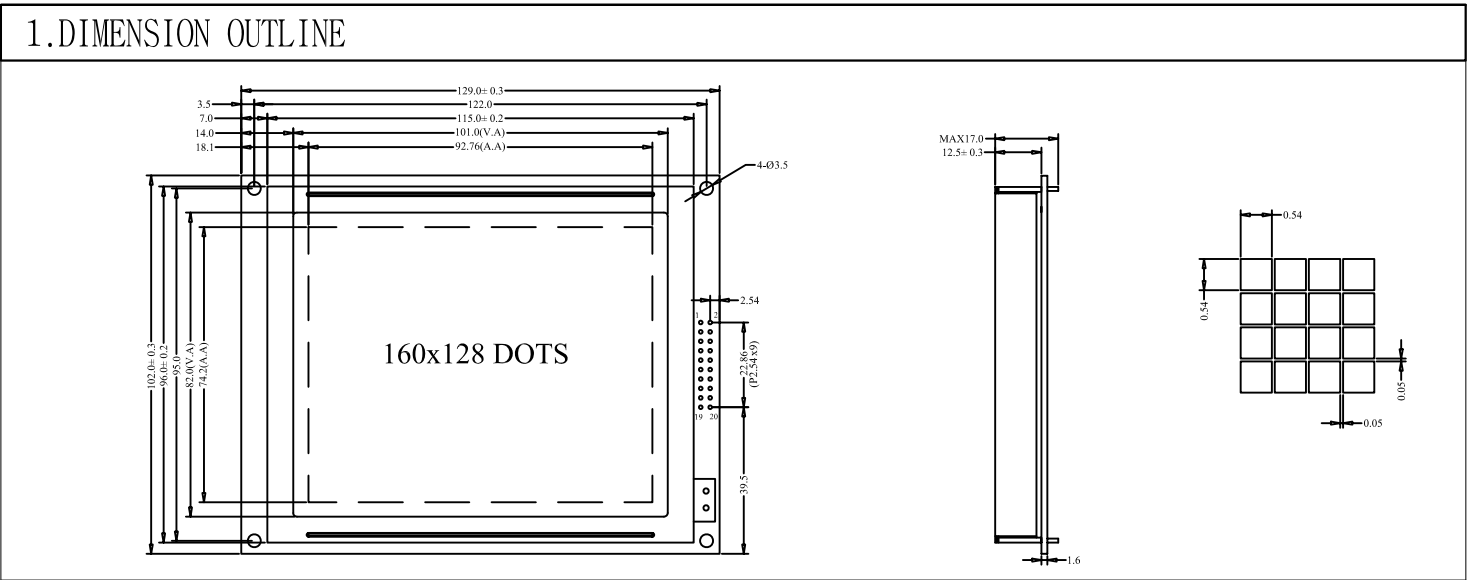


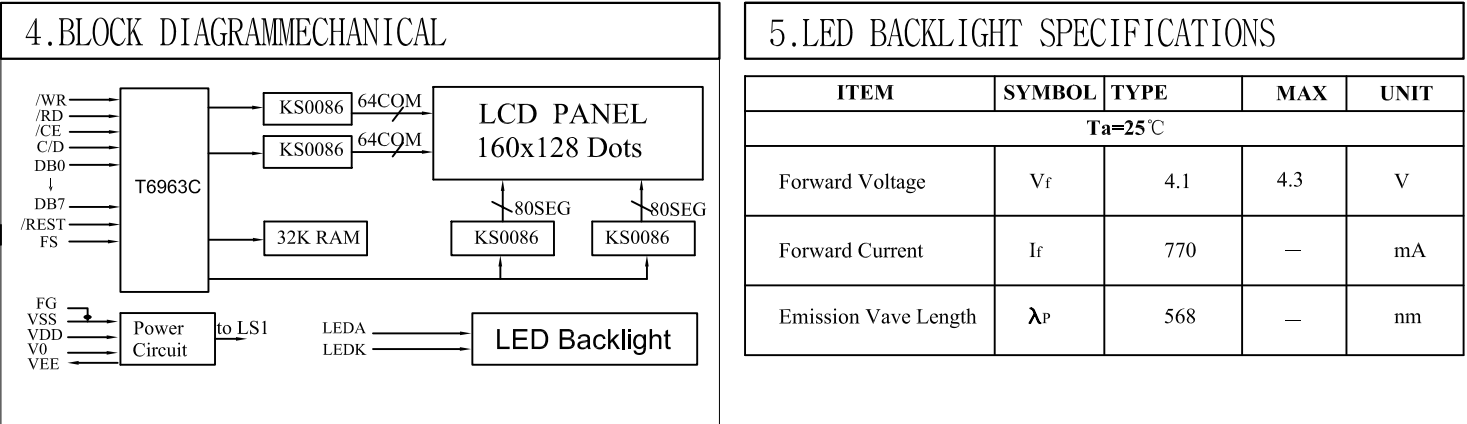


2.MECHANICAL SPECIFICATIONS

| ITEM                    | SPECIFICATIONS   | ITEM | REMARK                        |
|-------------------------|------------------|------|-------------------------------|
| Module Size(L×W×H)      | 129.0×102.0×17.0 | mm   | Reference Dimensional Outline |
| View Area(W×H)          | 101.0×82.0       | mm   |                               |
| Effective V/Area        | 92.76×74.2       | mm   |                               |
| Number of Characters    | 160×128          | -    |                               |
| Dot Pitch(W×H)          | 0.59×0.59        | mm   |                               |
| Dot Size(W×H)           | 0.54×0.54        | mm   |                               |
| Weight (Reflective/Led) | -                | g    |                               |

3.ABSOLUTE MAXIMUM RATINGS

| ITEM                  | SYMBOL           | CONDITION | STANDARD |                       |
|-----------------------|------------------|-----------|----------|-----------------------|
|                       |                  |           | MIN      | MAX                   |
| Logic Voltage         | V <sub>DD</sub>  | Ta=25℃    | -0.3V    | 7V                    |
| LCD Voltage           | V <sub>LCD</sub> |           | -0.3V    | 25V                   |
| Input Voltage         | V <sub>I</sub>   |           | -0.3V    | V <sub>DD</sub> +0.3V |
| Operation Temperature | T <sub>OP</sub>  | —         | -20℃     | 70℃                   |
| Storage Temperature   | T <sub>St</sub>  | —         | -30℃     | 80℃                   |



6.INTERFACE PIN CONNECTIONS

| ITEM  | SYMBOL  | LEVEL | FUNCTIONS                      |
|-------|---------|-------|--------------------------------|
| 1     | FG      | —     | Frame Ground                   |
| 2     | VSS     | 0V    | Power Ground                   |
| 3     | VDD     | +5V   | Power supply for logic         |
| 4     | V0      | —     | Contrast adjust                |
| 5     | VEE     | —     | Supply voltage for lcd driving |
| 6     | /WR     | L     | Write signal                   |
| 7     | /RD     | L     | Read signal                    |
| 8     | /CE     | L     | Chip enable signal             |
| 9     | C/D     | H/L   | H:data L:command               |
| 10    | /HALT   | H/L   | H: Normal L:Stop osc clk       |
| 11    | /REST   | L     | Reset singnal                  |
| 12-19 | DB0-DB7 | H/L   | Data Bus                       |
| 20    | NC      | —     | No connection                  |

7.ELECTRICAL CHARACTERISTICS

| ITEM                      | SYMBOL                          | MIN                  | TYPE | MAX             | UNIT |
|---------------------------|---------------------------------|----------------------|------|-----------------|------|
| Ta=25℃                    |                                 |                      |      |                 |      |
| Logic Power               | V <sub>DD</sub>                 | 4.5                  | 5    | 5.5             | V    |
| Input High Voltage        | V <sub>IH</sub>                 | V <sub>DD</sub> -2.2 | —    | V <sub>DD</sub> | V    |
| Input Low Voltage         | V <sub>IL</sub>                 | 0                    | —    | 0.8             | V    |
| Output High Voltage       | V <sub>OH</sub>                 | V <sub>DD</sub> -0.3 | —    | V <sub>DD</sub> | V    |
| Output Low Voltage        | V <sub>OL</sub>                 | 0                    | —    | 0.3             | V    |
| Logic Current             | I <sub>DD</sub>                 | —                    | —    | 20              | mA   |
| Operation Voltage For LCD | V <sub>DD</sub> -V <sub>0</sub> | —                    | 15.5 | —               | V    |