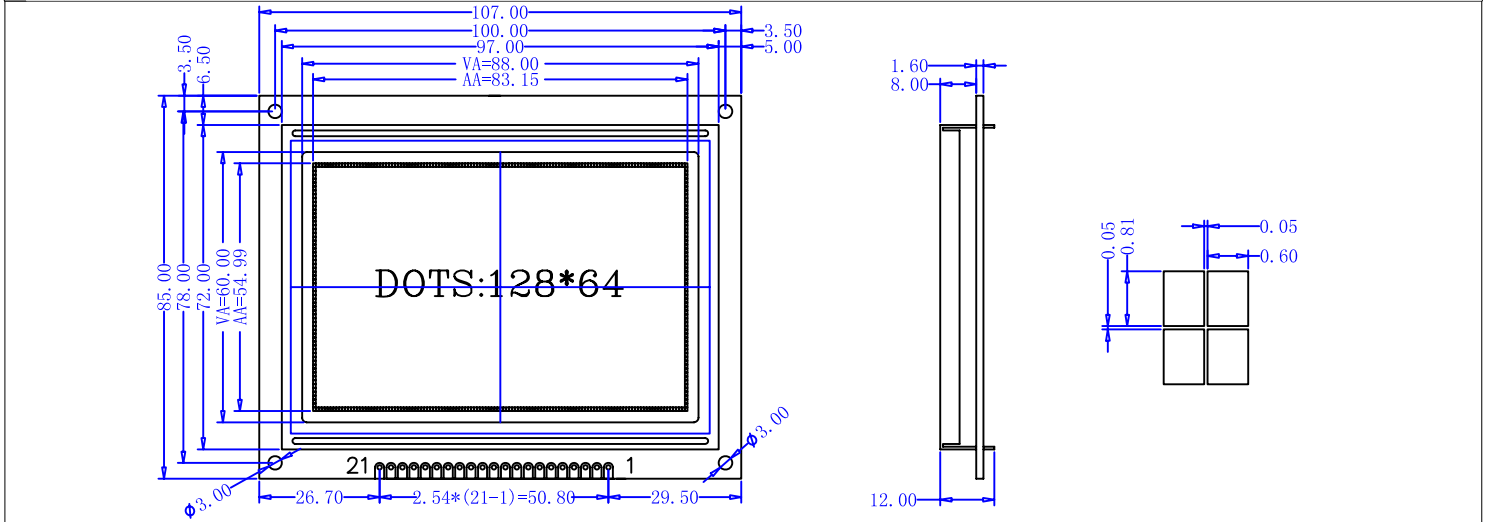


1.DIMENSION OUTLINE



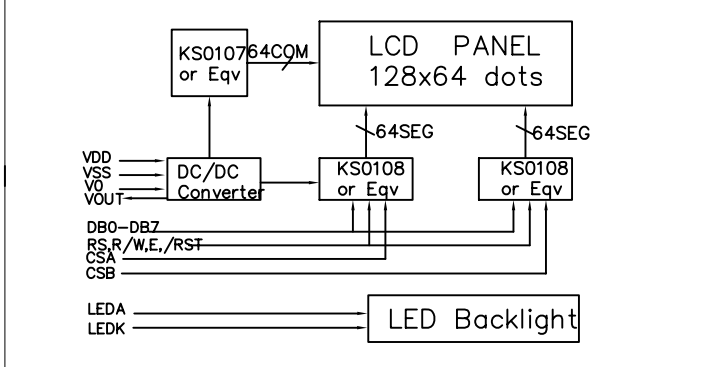
2.MECHANICAL SPECIFICATIONS

| ITEM | SPECIFICATIONS | ITEM | REMARK |
|-------------------------|-----------------|------|-------------------------------|
| Module Size(L×W×H) | 107.0×85.0×12.0 | mm | Reference Dimensional Outline |
| View Area(W×H) | 88×60 | mm | |
| Effective V/Area | 83.15×54.99 | mm | |
| Number of Characters | 128×64 | - | |
| Dot Pitch(W×H) | 0.65×0.86 | mm | |
| Dot Size(W×H) | 0.60×0.81 | mm | |
| Weight (Reflective/Led) | - | g | |

3.ABSOLUTE MAXIMUM RATINGS

| ITEM | SYMBOL | CONDITION | STANDARD | |
|-----------------------|------------------|-----------|----------|-----------------------|
| | | | MIN | MAX |
| Logic Voltage | V _{DD} | Ta=25 °C | -0.3V | 7V |
| LCD Voltage | V _{LCD} | | -0.3V | 12.5V |
| Input Voltage | V _i | | -0.3V | V _{DD} +0.3V |
| Operation Temperature | T _{OP} | - | -20 °C | 70 °C |
| Storage Temperature | T _{St} | - | -30 °C | 80 °C |

4.BLOCK DIAGRAMMECHANICAL



5.LED BACKLIGHT SPECIFICATIONS

| ITEM | SYMBOL | TYPE | MAX | UNIT |
|----------------------|----------------|------|-----|------|
| Ta=25 °C | | | | |
| Forward Voltage | V _f | 3.1 | 3.2 | V |
| Forward Current | I _f | 60 | - | mA |
| Emission Wave Length | λ _p | --- | - | nm |

6.INTERFACE PIN CONNECTIONS

| ITEM | SYMBOL | LEVEL | FUNCTIONS |
|------|---------|-------|--------------------------------|
| 1 | VDD | +5V | Power supply for logic |
| 2 | VSS | 0V | Power Ground |
| 3 | V0 | - | Contrast adjust |
| 4 | RS | H/L | H:data L:command |
| 5 | R/W | H/L | H:read L:write |
| 6 | E | H.H→L | Enable signal |
| 7-14 | DB0-DB7 | H/L | Data Bus |
| 15 | CSA | L | Chip selection signal A |
| 16 | CSB | L | Chip selection signal B |
| 17 | /RST | L | Reset signal |
| 18 | VOUT | - | Output voltage for LCD driving |
| 19 | LEDA | +5V | Power supply for LED backlight |
| 20 | LEDK | 0V | |

7.ELECTRICAL CHARACTERISTICS

| ITEM | SYMBOL | MIN | TYPE | MAX | UNIT |
|---------------------------|--------------------|--------------------|------|-----------------|------|
| Ta=25 °C | | | | | |
| Logic Power | V _{DD} | 4.5 | 5 | 5.5 | V |
| Input High Voltage | V _{IH} | 0.8V _{DD} | - | V _{DD} | V |
| Input Low Voltage | V _{IL} | V _{SS} | - | 0.8 | V |
| Output High Voltage | V _{OH} | 2.4 | - | - | V |
| Output Low Voltage | V _{OL} | 0 | - | 0.4 | V |
| Logic Current | I _{DD} | - | 6 | 8 | mA |
| Operation Voltage For LCD | V _{DD-V0} | - | 9 | - | V |