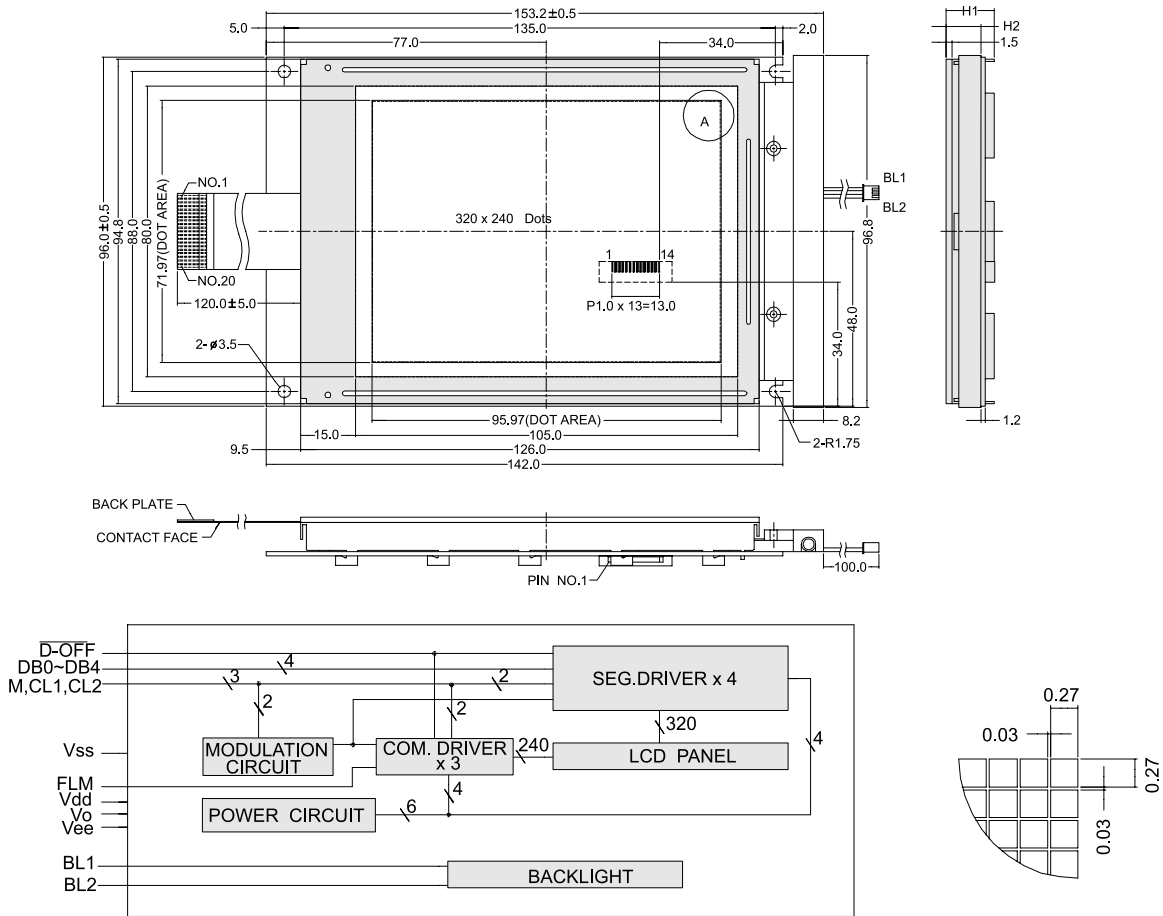


OUTLINE DIMENSION & BLOCK DIAGRAM



The tolerance unless classified $\pm 0.3\text{mm}$

| MECHANICAL SPECIFICATION | | | |
|--------------------------|--------------|----------------|-------------|
| Overall Size | 153.2 x 96.0 | Module | H2 / H1 |
| View Area | 105.0 x 80.0 | W/O B/L | - / - |
| Dot Size | 0.27 x 0.27 | EL B/L | - / - |
| Dot Pitch | 0.30 x 0.30 | LED / CCFL B/L | 10.5 / 20.3 |

| PIN ASSIGNMENT | | |
|----------------|--------|--------------------------|
| Pin no. | Symbol | Function |
| 1 | FLM | Shift direction select |
| 2 | M | Synchronous signal input |
| 3 | CL1 | Display data input clock |
| 4 | CL2 | Display data input clock |
| 5 | D-OFF | Column output control |
| 6 | DB0 | Data bus line |
| 7 | DB1 | Data bus line |
| 8 | DB2 | Data bus line |
| 9 | DB3 | Data bus line |
| 10 | Vdd | Power supply(+) |
| 11 | Vss | Power supply(GND) |
| 12 | Vee | Negative voltage input |
| 13 | Vo | Contrast Adjust |
| 14 | FG | Frame ground |

| ABSOLUTE MAXIMUM RATING | | | | | | | | | |
|----------------------------------|-----------|-----------|------|---------|-------|-------|------|------|---|
| Item | Symbol | Condition | Min. | Max. | Units | | | | |
| Supply for logic voltage | Vdd-Vss | 25°C | -0.3 | +7.0 | V | | | | |
| LCD driving supply voltage | Vdd-Vee | 25°C | 0 | +35.0 | V | | | | |
| Input Voltage | Vin | 25°C | -0.3 | Vdd-0.3 | V | | | | |
| ELECTRICAL CHARACTERISTICS | | | | | | | | | |
| Item | Symbol | Condition | Min. | Typical | Max. | Units | | | |
| Power Supply Voltage | Vdd-Vss | 25°C | 4.5 | - | 5.5 | V | | | |
| LCD operation voltage | Vop | Top | N | W | N | W | V | | |
| | | -20°C | - | 26.9 | - | 28.4 | - | 29.9 | V |
| | | 0°C | 25.5 | - | 27 | - | 28.5 | - | V |
| | | 25°C | 23.5 | 24.4 | 25 | 25.9 | 28.5 | 27.4 | V |
| | | 50°C | 21 | - | 22.5 | - | 24 | - | V |
| | | 70°C | - | 22 | - | 23.5 | - | 25 | V |
| LCM current consumption (No B/L) | Idd | Vdd=5V | - | 4 | 7 | mA | | | |
| Backlight current consumption | LED/edge | VB/L=4.2V | - | 180 | - | mA | | | |
| | LED/white | VB/L=3.5V | - | 120 | - | mA | | | |