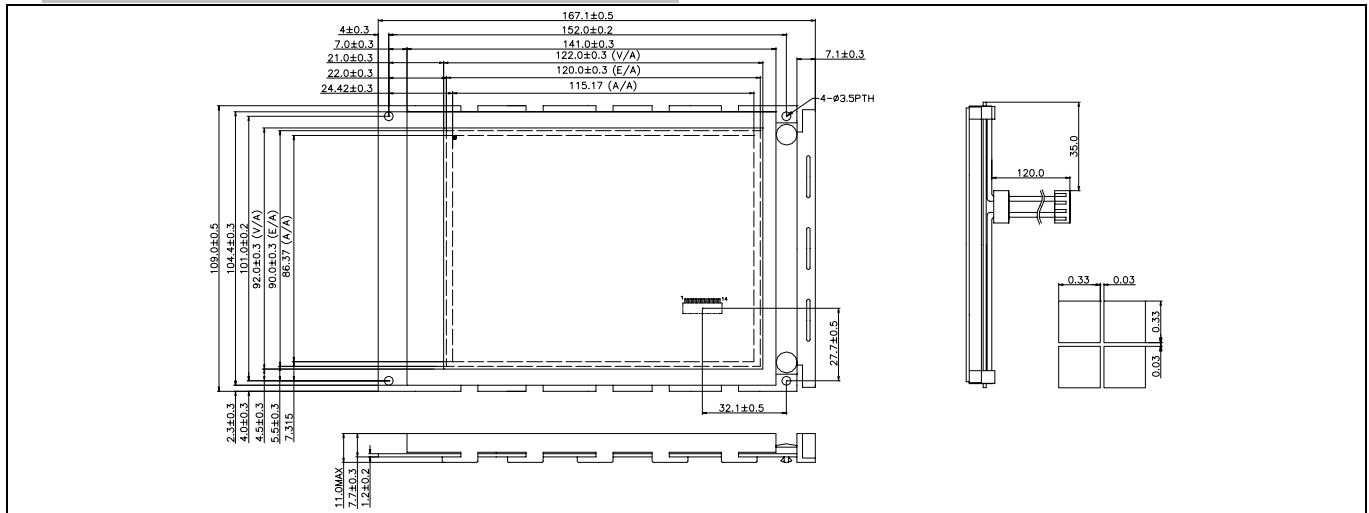


# HE326XX11

320 X 240 Dots

## 1. EXTERNAL DIMENSION AND DISPLAY PATTERN



## 2. MECHANICAL DATA

| ITEM                 | SPECIFICATION    | UNIT |
|----------------------|------------------|------|
| Module Size (W×H×T)  | 167.0×109.0×11.0 | mm   |
| Viewing Area (W×H)   | 122.0×92.0       | mm   |
| Number of Dots (W×H) | 320×240          | dots |
| Dot Pitch (W×H)      | 0.36×0.36        | mm   |
| Dot Size (W×H)       | 0.33×0.33        | mm   |

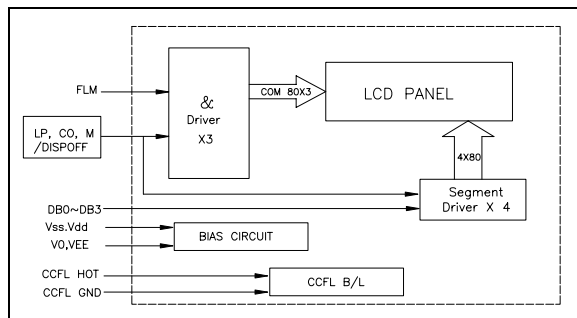
## 3. ELECTRICAL CHARACTERISTICS (Ta=25 °C)

| ITEM                     | SYMBOL            | CONDITION             | SPEC. VALUE     |              |      | UNIT        |
|--------------------------|-------------------|-----------------------|-----------------|--------------|------|-------------|
|                          |                   |                       | MIN.            | TYP.         | MAX. |             |
| Supply Voltage (Logic)   | $V_{DD} - V_{SS}$ |                       | 2.7             | 5.0          | 5.5  | V           |
| Supply Current (Logic)   | $I_{DD}$          | $V_{DD}=5V$           | -               | 8.7          | 13.0 | mA          |
| Input Voltage            | "HIGH"            | $V_{IH}$              | -               | $0.8V_{DD}$  | -    | $V_{DD}$    |
|                          | "LOW"             | $V_{IL}$              | -               | 0            | -    | $0.2V_{DD}$ |
| Output Voltage           | "HIGH"            | $V_{OH}$              | $I_{OH}=-0.4mA$ | $V_{DD}-0.4$ | -    | V           |
|                          | "LOW"             | $V_{OL}$              | $I_{OL}=0.4mA$  | -            | 0.4  | V           |
| LCD Operating Voltage    | $V_{DD} - V_o$    | $V_{DD}=5V, Ta=25 °C$ | -               | 25.0         | -    | V           |
| Supply Voltage LCD Drive | $I_o$             |                       | -               | 3.5          | 5.3  | mA          |

## 4. PIN CONFIGURATION

| PIN | SYMBOL          | SIGNAL DESCRIPTION | PIN | SYMBOL          | SIGNAL DESCRIPTION                   |
|-----|-----------------|--------------------|-----|-----------------|--------------------------------------|
| 1   | DB <sub>0</sub> | Data Bit 0         | 8   | LOAD            | Data Latch                           |
| 2   | DB <sub>1</sub> | Data Bit 1         | 9   | CP              | Data Shift                           |
| 3   | DB <sub>2</sub> | Data Bit 2         | 10  | V <sub>DD</sub> | Logic Voltage                        |
| 4   | DB <sub>3</sub> | Data Bit 3         | 11  | V <sub>SS</sub> | Ground                               |
| 5   | /DISPOFF        | Display Off        | 12  | V <sub>EE</sub> | Power Supply for LCD                 |
| 6   | FLM             | Frame Signal       | 13  | V <sub>O</sub>  | Operating Voltage for LCD (Variable) |
| 7   | NC              | No Connection      | 14  | FGND            | Frame Ground                         |

## 5. BLOCK DIAGRAM



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

### CCFL

| ITEM                     | SYMBOL | CONDITION | MIN | TYP | MAX | UNIT              |
|--------------------------|--------|-----------|-----|-----|-----|-------------------|
| Discharging tube current | $I_L$  | -         | -   | 5   |     | mA                |
| Discharging tube voltage | $V_L$  |           | -   | 220 |     | Vrms              |
| Power consumption        | $P_D$  |           |     | 1.2 | 1.8 | W                 |
| Lamp supply frequency    | $f_L$  |           |     | 35  |     | K Hz              |
| Luminous                 | -      | $I_F=5mA$ | -   | 75  |     | cd/m <sup>2</sup> |