

Scale: 1:1 

LCM Optical Characteristics

| Item                               | Conditions     |    | Min.          | Typ.  | Max.          | Unit   | Note        |
|------------------------------------|----------------|----|---------------|-------|---------------|--------|-------------|
| Viewing Angle<br>(CR>10)           | Horizontal     | θL | -             | 80    | -             | degree | (1),(2),(6) |
|                                    |                | θR | -             | 80    | -             |        |             |
|                                    | Vertical       | θT | -             | 80    | -             |        |             |
|                                    |                | θB | -             | 80    | -             |        |             |
| Contrast Ratio                     | Center         |    | 640           | 800   | -             | -      | (1),(3),(6) |
| Response Time                      | Rising+Falling |    | -             | 30    | 40            | ms     | (1),(4),(6) |
| CF Color Chromaticity<br>(CIE1931) | Red x          |    | Typ.<br>-0.05 | 0.647 | Typ.<br>+0.05 | -      | (1), (6)    |
|                                    | Red y          |    |               | 0.317 |               | -      |             |
|                                    | Green x        |    |               | 0.275 |               | -      |             |
|                                    | Green y        |    |               | 0.582 |               | -      |             |
|                                    | Blue x         |    |               | 0.140 |               | -      |             |
|                                    | Blue y         |    |               | 0.088 |               | -      |             |
|                                    | White x        |    |               | 0.310 |               | -      |             |
|                                    | White y        |    |               | 0.336 |               | -      |             |
| Color Gamut                        | S(%)           |    | 54            | 60    | -             | %      |             |

LED Backlight Characteristics

| Item                       | Symbol | MIN | TYP   | MAX | UNIT  | Test Condition |
|----------------------------|--------|-----|-------|-----|-------|----------------|
| Supply Voltage             | Vf     | -   | 3.2   | -   | V     | If=60mA        |
| Supply Current             | If     | -   | 60    | -   | mA    | -              |
| Luminous Intensity for LCM | -      | -   | 450   | -   | cd/m2 | If=60mA        |
| Uniformity for LCM         | -      | -   | 70    | -   | %     | If=60mA        |
| Life Time                  | -      | -   | 50000 | -   | Hr    | If=40mA        |
| Backlight Color            | White  |     |       |     |       |                |

| PIN NO. | PIN NAME | DESCRIPTION                                 |
|---------|----------|---------------------------------------------|
| 1       | LEDA     | LED Power supply anode                      |
| 2       | LEDK     | LED Power supply cathode                    |
| 3-4     | NC       | NC                                          |
| 5       | IOVCC    | I/O System power supply                     |
| 6       | VCC      | System power supply                         |
| 7-14    | DB7-DB0  | DATA BUS                                    |
| 15      | RD       | Read enable in 8080 MCU parallel interface  |
| 16      | WR       | Write enable in MCU parallel interface      |
| 17      | RS       | Serves as command or parameter select.      |
| 18      | CS       | Serves as chip select.                      |
| 19      | TE       | TE signal                                   |
| 20      | RESET    | Reset signal input terminal, active at 'L'. |
| 21-22   | GND      | System power ground.                        |