

|                  |                         |                  |                 |
|------------------|-------------------------|------------------|-----------------|
| <b>LMC-S2P16</b> | <b>16 Char X 2 Line</b> | <b>1/16 Duty</b> | <b>1/4 Bias</b> |
|------------------|-------------------------|------------------|-----------------|

| FEATURE              |                        |    |
|----------------------|------------------------|----|
| LCD TYPE             | TN , STN               |    |
| LCM CONTROLLER IC    | SPLC780 or Equivalent  |    |
| CHARACTER FONTS      | 5X8 Dots (With Cursor) |    |
| LCM BACKLIGHT TYPE   | LED                    |    |
| POWER SUPPLY FOR LCM | DC +5V                 |    |
| LED BACKLIGHT INPUT  | DC +5V                 |    |
| LCM DIMENSION        | 80.0 (W) X 36.0 (H)    | mm |
| LCM VIEWING          | 65.0 (W) X 16.0 (H)    | mm |
| ACTIVE DISPLAY AREA  | 56.21 (W) X 11.50 (H)  | mm |
| CHARACTER SIZE       | 2.96 (W) X 5.56 (H)    | mm |
| CHARACTER PITCH      | 3.55 (W) X 5.94 (H)    | mm |
| LCD DOT SIZE         | 0.56 (W) X 0.66 (H)    | mm |
| LCD DOT PITCH        | 0.60 (W) X 0.70 (H)    | mm |

| ABSOLUTE MAXIMUM RATINGS |                                 |                 |      |                 |      |
|--------------------------|---------------------------------|-----------------|------|-----------------|------|
| ITEM                     | SYM.                            | MIN.            | TYP. | MAX.            | UNIT |
| OPERATING TEMP.          | T <sub>OP</sub>                 | 0               | --   | +50             | °C   |
| STORAGE TEMP.            | T <sub>SP</sub>                 | -10             | --   | +60             | °C   |
| INPUT VOLTAGE            | V <sub>I</sub>                  | V <sub>SS</sub> | --   | V <sub>DD</sub> | V    |
| SUPPLY VOL. FOR LCD      | V <sub>DD</sub> -V <sub>O</sub> | --              | --   | 6.5             | V    |

| INTERFACE PIN CONNECTIONS |      |       |                 |
|---------------------------|------|-------|-----------------|
| NO.                       | SYM. | LEVEL | FUNCTION        |
| 1                         | VSS  | --    | GND (0V)        |
| 2                         | VDD  | --    | DC +5V          |
| 3                         | Vo   | --    | Contrast Adjust |
| 4                         | RS   | H/L   | Register select |
| 5                         | R/W  | H/L   | Read/Write      |
| 6                         | E    | H,H→L | Enable signal   |
| 7                         | DB0  | H/L   | Data Bit 0      |
| 8                         | DB1  | H/L   | Data Bit 1      |
| 9                         | DB2  | H/L   | Data Bit 2      |
| 10                        | DB3  | H/L   | Data Bit 3      |
| 11                        | DB4  | H/L   | Data Bit 4      |
| 12                        | DB5  | H/L   | Data Bit 5      |
| 13                        | DB6  | H/L   | Data Bit 6      |
| 14                        | DB7  | H/L   | Data Bit 7      |
| 15                        | A(+) | DC+5V | LED Backlight + |
| 16                        | K(-) | 0V    | LED Backlight - |

| ELECTRICAL                          |                                  |                     |      |        |                 |      |
|-------------------------------------|----------------------------------|---------------------|------|--------|-----------------|------|
| ITEM                                | SYM.                             | CONDITION           | MIN. | TYP.   | MAX             | UNIT |
| Supply Voltage<br>For LCD Driver    | V <sub>DD</sub> -V <sub>O</sub>  | Ta=0°C              | --   | 4.6    | --              | V    |
|                                     |                                  | Ta=25°C             | --   | 4.3    | --              |      |
|                                     |                                  | Ta=50°C             | --   | 4.0    | --              |      |
| Operating Voltage<br>For LCD Module | V <sub>DD</sub> -V <sub>SS</sub> | --                  | 4.5  | 5.0    | 5.5             | V    |
| Input High Voltage                  | V <sub>IH</sub>                  | --                  | 2.2  | --     | V <sub>DD</sub> | V    |
| Input Low Voltage                   | V <sub>IL</sub>                  | --                  | 0    | --     | 0.6             | V    |
| Output High Voltage                 | V <sub>OH</sub>                  | --                  | 2.4  | --     | --              | V    |
| Output Low Voltage                  | V <sub>OL</sub>                  | --                  | --   | --     | 0.4             | V    |
| Supply Current<br>For Logic         | I <sub>DD</sub>                  | V <sub>DD</sub> =5V | --   | 3.0    | 4.5             | mA   |
| LED Current                         | I <sub>F</sub>                   | Ta=25°C             | --   | 26/100 | --              | mA   |

