



Feature

1. Built-in controller Samsung- (KS0713)
2. +3V or +5V Power supply
3. 1/65 duty cycle
4. Optional touch panel

Pin Assignment

| Pin | Symbol | Pin | Symbol |
|-----|--------|-----|--------|
| 1 | NC | 24 | CLS |
| 2 | TEMPS | 25 | MS |
| 3 | INTRS | 26 | DUTY1 |
| 4 | HPM | 27 | DUTY0 |
| 5 | DCDC5B | 28 | DB7 |
| 6 | BSTS | 29 | DB6 |
| 7 | V4 | 30 | DB5 |
| 8 | V3 | 31 | DB4 |
| 9 | V2 | 32 | DB3 |
| 10 | V1 | 33 | DB2 |
| 11 | V0 | 34 | DB1 |
| 12 | VR | 35 | DB0 |
| 13 | C2- | 36 | E_RD |
| 14 | C2+ | 37 | RW_WR |
| 15 | C1- | 38 | RS |
| 16 | C1+ | 39 | RESETB |
| 17 | C3- | 40 | CS2 |
| 18 | C3+ | 41 | CS1B |
| 19 | Vout | 42 | DISP |
| 20 | Vdd | 43 | CL |
| 21 | Vss | 44 | M |
| 22 | PS | 45 | FRS |
| 23 | MI | 46 | NC |

Mechanical Data

| Item | Standard Value | Unit |
|------------------|----------------|------|
| Module Dimension | 56.0 x 42.5 | mm |
| Viewing Area | 52.0 x 33.5 | mm |
| Dot Size | 0.35 x 0.4 | mm |
| Dot Pitch | 0.37 x 0.42 | mm |

Absolute Maximum Rating

| Item | Symbol | Standard Value | | | Unit |
|---------------|---------|----------------|------|------|------|
| | | min. | typ. | max. | |
| Power Supply | VDD-VSS | -2.4 | -- | 5.5 | V |
| Input Voltage | VI | -0.3 | -- | VDD | V |

Note: VSS=0 Volt, VDD=5.0 Volt.

Electronical Characteristics

| Item | Symbol | Condition | Standard Value | | | Unit |
|--|--------|-----------|--------------------|------|-----------------|------|
| | | | min. | typ. | max. | |
| Input Voltage | VDD | L level | 0.8V _{DD} | -- | V _{DD} | V |
| | VIO | H level | -- | -- | -- | V |
| Recommended LC Driving Voltage for Normal Temp. Version module | VDD-V0 | -20°C | 9.5 | 10.0 | 10.5 | V |
| | | 0°C | 9.3 | 9.8 | 10.3 | |
| | | 25°C | 7.9 | 8.4 | 8.9 | |
| | | 50°C | 7.0 | 7.5 | 8.0 | |
| | | 70°C | 6.8 | 7.3 | 7.8 | |