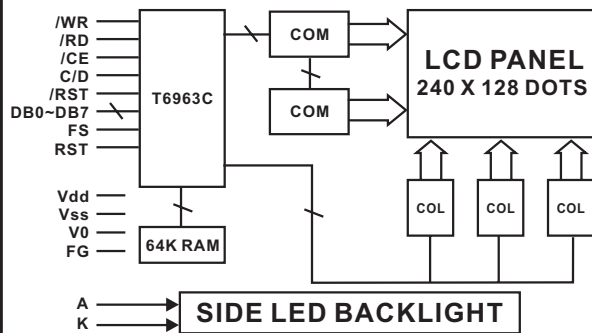


| ITEM | T1 | T2 |
|------------------------|-----|------|
| LED backlight (side) | 5.9 | 10.0 |
| EL / without backlight | --- | --- |

BLOCK DIAGRAM



FEATURE

1. 240 X128 dots graphic LCD module
2. Built-in controller (T6963C)
3. +5V power supply
4. STN LCD panel, 1/128 duty cycle

MECHANICAL SPECIFICATIONS

| PARAMETER | VALUE | UNIT |
|--------------|-------------------|------|
| DOT NUMBER | 240 W X 128H | — |
| OVERALL SIZE | 144.00W X 104.00H | mm |
| VIEWING AREA | 114.00W X 64.00H | mm |
| HOLE - HOLE | 138.00W X 97.00H | mm |
| DOT SIZE | 0.40W X 0.40H | mm |
| DOT PITCH | 0.05W X 0.05H | mm |

PIN ASSIGNMENT

| PIN | SYMBOL | FUNCTION |
|----------|------------|----------------------------|
| 1 | FG | Frame ground |
| 2 | Vss | GND |
| 3 | Vdd | Power Supply |
| 4 | V0 | Operating voltage for LCD |
| 5 | /WR | Write enable signal |
| 6 | /RD | Read enable signal |
| 7 | /CE | Chip enable signal |
| 8 | C/D | H: Instruction , L: Data |
| 9 | /RST | Reset signal |
| 10 to 17 | DB0 to DB7 | H/L Data bus line |
| 18 | FS | Font selection |
| A | LED+ | Power supply for BKL(4.2V) |
| K | LED- | Power supply for BKL(GND) |

ABSOLUTE MAXIMUM RATINGS

| ITEM | SYMBOL | MIN | MAX | UNIT |
|----------------------|--------|----------|---------|------|
| POWER SUPPLY (LOGIC) | Vdd | -0.3 | 7.0 | V |
| POWER SUPPLY (LCD) | V0 | Vdd-30.0 | Vdd+0.3 | V |
| INPUT VOLTAGE | Vin | -0.3 | Vdd+0.3 | V |

ELECTRONICAL CHARACTERISTICS

| ITEM | SYMBOL | CONDITION | STANDARD | | | UNIT |
|--|----------------|-----------|----------|------|-----|------|
| | | | MIN | TYP | MAX | |
| Input voltage | Vdd | +5V | 4.7 | 5.0 | 5.5 | V |
| Supply current | Idd | Vdd=5V | --- | 10 | --- | mA |
| Recommended LCD driving voltage for normal temp version module | Vdd-V0 | 0 °C | --- | 19.5 | --- | V |
| | | 25 °C | --- | 19.0 | --- | |
| | | 50 °C | --- | 18.0 | --- | |
| LED forward voltage | V _F | 25 °C | --- | 4.2 | 4.5 | V |
| LED forward current | I _F | 25 °C | --- | 530 | --- | mA |