



ELECTRONICS

Product Information

SAMSUNG TFT-LCD

MODEL NO. : LTN141P1-L01

SAMSUNG ELECTRONICS CO. LTD.

Doc.No.

LTN141P1-L01

Rev.No

04-002-G-000325

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GENERAL DESCRIPTION

DESCRIPTION

LTN141P1-L01 is a color active matrix TFT (Thin Film Transistor) liquid crystal display (LCD) that uses amorphous silicon TFT as a switching devices. This model is composed of a TFT LCD panel, a driver circuit and a backlight system. The resolution of a 14.1" contains 1400 x 1050 pixels and can display up to 262,144 colors. 6 O'clock direction is the Optimum viewing angle.

FEATURES

- Thin and light weight
- High contrast ratio
- SXGA-Plus((1400x1050) pixels) resolution
- Low power consumption
- DE (Data enable) only mode.

APPLICATIONS

- Notebook PC and desktop monitors
- Display terminals for AV application products
- Monitors for Industrial machine
- If the usage of this product is not for PC application, but for others, please contact SEC

GENERAL INFORMATION

| ITEM | SPECIFICATION | UNIT | NOTE |
|-------------------|-----------------------------------|-------|------|
| Display area | 285.6(H)X214.2(V) (14.1"diagonal) | mm | |
| Driver element | a-Si TFT active matrix | | |
| Display colors | 262,144 | | |
| Number of pixel | 1400 x 1050 | pixel | |
| Pixel arrangement | RGB vertical stripe | mm | |
| Pixel pitch | 0.204(H) x 0.204(V) (TYP.) | | |
| Display Mode | Normally white | | |
| Surface treatment | HAZE (25), HARD-COATING (3H) | | |

Mechanical Information

| ITEM | | MIN. | TYP. | MAX. | NOTE |
|------------------|----------------|-------|-------|-------|------|
| Module size (mm) | Horizontal (H) | 298.0 | 298.5 | 299.0 | |
| | Vertical (V) | 226.0 | 226.5 | 227.0 | |
| | Depth (D) | - | 5.9 | TBD | |
| Weight | | - | 540 | TBD | |

INPUT Interface Connection

LVDS

Connector : UJ-FI-SEB-20P-HF13

Mating Connector : JAE FI-SE20M-HF

| PIN NO | SYMBOL | FUNCTION | POLARITY | REMARK |
|--------|----------|------------------------------|----------|----------------|
| 1 | VDD | POWER SUPPLY +3.3V | | |
| 2 | VDD | POWER SUPPLY +3.3V | | |
| 3 | GND | GROUND | | |
| 4 | GND | GROUND | | |
| 5 | O_RxIN0- | LVDS Differential Data INPUT | Negative | Odd channel 0 |
| 6 | O_RxIN0+ | LVDS Differential Data INPUT | Positive | Odd channel 0 |
| 7 | O_RxIN1- | LVDS Differential Data INPUT | Negative | Odd channel 1 |
| 8 | O_RxIN1+ | LVDS Differential Data INPUT | Positive | Odd channel 1 |
| 9 | O_RxIN2- | LVDS Differential Data INPUT | Negative | Odd channel 2 |
| 10 | O_RxIN2+ | LVDS Differential Data INPUT | Positive | Odd channel 2 |
| 11 | O_RxCLK- | LVDS Differential Data INPUT | Negative | Odd Clock |
| 12 | O_RxCLK+ | LVDS Differential Data INPUT | Positive | Odd Clock |
| 13 | E_RxIN0- | LVDS Differential Data INPUT | Negative | Even channel 0 |
| 14 | E_RxIN0+ | LVDS Differential Data INPUT | Positive | Even channel 0 |
| 15 | E_RxIN1- | LVDS Differential Data INPUT | Negative | Even channel 1 |
| 16 | E_RxIN1+ | LVDS Differential Data INPUT | Positive | Even channel 1 |
| 17 | E_RxIN2- | LVDS Differential Data INPUT | Negative | Even channel 2 |
| 18 | E_RxIN2+ | LVDS Differential Data INPUT | Positive | Even channel 2 |
| 19 | E_RxCLK- | LVDS Differential Data INPUT | Negative | Even Clock |
| 20 | E_RxCLK+ | LVDS Differential Data INPUT | Positive | Even Clock |

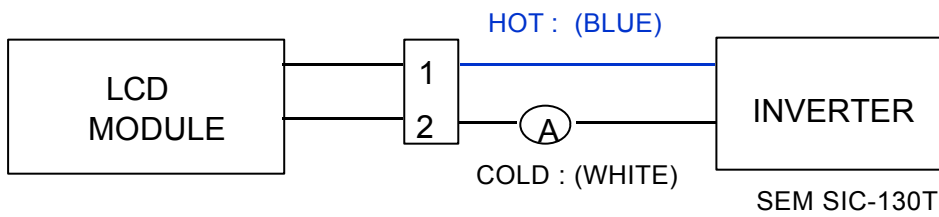
BACK-LIGHT UNIT

The backlight system is an edge - lighting type with a single CCFT.

Ta = 25 ± 2 °C

| ITEM | SYMBOL | MIN. | MAX. | UNIT | NOTE |
|----------------|--------|------|------|-------|------|
| Lamp Current | IL | 3.0 | 6.0 | mArms | (1) |
| Lamp frequency | FL | 40 | 680 | kHz | (1) |

Note 1) Permanent damage to the device may occur if maximum values are exceeded
 Functional operation should be restricted to the conditions described under normal operating condition



Switching Frequency : 40 ~ 60KHz

Connector : JST BHSR - 02VS -1
 Mating Connector : SM02B-BHSS-1(JST)

BACKLIGHT CONNECTOR PIN CONFIGURATION

| Pin NO. | Symbol | Color | Function |
|---------|--------|-------|--------------|
| 1 | HOT | Blue | High Voltage |
| 2 | COLD | White | Low Voltage |

