# IL164XE05-R185

## 1. General Features

| Items | | Specification | Unit | Note |
|---|---|---|---|---|
| General | Active Screen Size | 16.8 | inches | |
| | Display area | 409.8x76.7 | mm | |
| | Luminance | 500 | cd/m$^2$ | |
| | Contrast Ratio | 1000:1 | | |
| | Outline Dimension | 440(H) x 108(V) x 15(D) | mm | |
| | Source Input | | | |
| | Input Voltage | | Vdc | |
| | Power Consumption | 12 | Watt | |
| | Weight | 2.0 | kg | |
| | Life Time | 50000 | Hrs | |
| | Operating Temperature | 0 - 50 | °C | |
| | Storage Temperature | -20 - 60 | °C | |
| | Operating Humidity | 10 - 90 | %RH | |
| | Storage Humidity | 10 - 90 | %RH | |
| Panel | Pixel Format | 1366 x 256 | Pixels | |
| | Pixel Pitch | 0.3 (H) x0.3 (W) | mm | |
| | Color Depth | 16777216 | Color | 8-bit |
| | Viewing Angle | 85/85/80/80 ( R/L/U/D ) | | CR>10 |
| | Surface Treatment | Hard coating(3H) & Anti-Glare treatment of the front polarizer | | |
| | input | LVDS (1 ch, 8-bit) , 30 pins | | |
| | Backlight | WLED | | |

## 2. Connector

### 2.1 TFT LCD Module

The module using one LVDS receiver SN75LVDS82(Texas Instruments). LVDS is a differential signal technology for LCD interface and high speed data transfer device. LVDS transmitters shall be SN75LVDS83(negative edge sampling). The first LVDS port(RxOxxx) transmits odd pixels while the second LVDS port(RxExxx) transmits even pixels.

| PIN # | SIGNAL | DESCRIPTION |
|---|---|---|
| 1 | NC | No contact (For AUO internal use) |
| 2 | NC | No contact (For AUO internal use) |
| 3 | NC | No contact (For AUO internal use) |
| 4 | GND | Power Ground |
| 5 | RXIN0- | Negative LVDS differential data input (0) |
| 6 | RXIN0+ | Positive LVDS differential data input (0) |
| 7 | GND | Power Ground |
| 8 | RXIN1- | Negative LVDS differential data input (1) |
| 9 | RXIN1+ | Positive LVDS differential data input (1) |
| 10 | GND | Power Ground |
| 11 | RXIN2- | Negative LVDS differential data input (2) |
| 12 | RXIN2+ | Positive LVDS differential data input (2) |
| 13 | GND | Power Ground |
| 14 | RXCLKIN- | Negative LVDS differential clock input (clock) |
| 15 | RXCLKIN+ | Positive LVDS differential data input (clock) |
| 16 | GND | Power Ground |
| 17 | RXIN3- | Negative LVDS differential data input (3) |
| 18 | RXIN3+ | Positive LVDS differential data input (3) |
| 19 | GND | Power Ground |
| 20 | NC | No contact (For AUO internal use) |
| 21 | NC | No contact (For AUO internal use) |
| 22 | NC | No contact (For AUO internal use) |
| 23 | GND | Power Ground |
| 24 | GND | Power Ground |
| 25 | GND | Power Ground |
| 26 | VDD | +5V power supply |
| 27 | VDD | +5V power supply |
| 28 | VDD | +5V power supply |
| 29 | VDD | +5V power supply |
| 30 | VDD | +5V power supply |

**Timing Characteristics**

Basically, interface timing described here is not actual input timing of LCD module but close to output timing of SN75LVDS82DGG (Texas Instruments) or equivalent.

| Signal | Item | Symbol | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| V-section | Period | Tv | 788 | 808 | 1313 | Th |
| | Active | Tdisp(v) | 768 | 768 | 768 | Th |
| | Blanking | Tblk(v) | 20 | 40 | 545 | Th |
| H-section | Period | Th | 1432 | 1606 | 2047 | Tclk |
| | Active | Tdisp(h) | 1366 | 1366 | 1366 | Tclk |
| | Blanking | Tblk(h) | 66 | 240 | 681 | Tclk |
| Clock | Period | Tclk | 10.64 | 12.8 | 17.72 | ns |
| | Frequency | Freq | 55 | 78 | 90 | MHz |
| Frame rate | Frame | F | 50 | 60 | 76 | Hz |

**Note1：**DE mode only

**Note2：**Clock Frequency 90MHz(Max.)= 1416(H)*847(V)*75Hz

## 2.2 Backlight Unit:

PH2.0-6pin

| Pin No. | Symbol | Description | note |
|---|---|---|---|
| 1 | VCC | Power supply voltage 12v | |
| 2 | VCC | Power supply voltage 12v | |
| 3 | ON/OFF | Output enable signal input 0~5V | |
| 4 | DIM | Dim signal input DC 0~5V | |
| 5 | GND | Power ground | |
| 6 | GND | Power ground | |

## 3. Mechanical Characteristics

Unit:mm