
Version:2.0

SPECIFICATION

SFD064VT4-ADV

Customer Approved

Customer _____

Date _____

By _____

Sailing's Confirmation

Approved By _____

Prepared By _____

Date: 2005.1.10

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GENERAL DESCRIPTION

- ◆ APPLY TO MULTIPLE LCD MODULE: PD064VT4/5, V16C6448ACVAFVAE.
- ◆ VGA AND VIDEO AND S-VIDEO INPUT SYSTEM

f_H : 48.1 KHz f_H :37.9KHz f_H :35.1KHz f_H :31.5KHz

f_V : 85Hz f_V : 75Hz f_V : 72Hz f_V : 60 Hz f_V : 56 Hz

DOT CLK: 50Mhz *DOT CLK*: 40Mhz *DOT CLK*: 36Mhz *DOT CLK*: 25.175Mhz

- ◆ POWER SOURCE DC 12V
- ◆ POWER CONSUMPTION 700 mA , 8.4W Max.
- ◆ OPERATING TEMPERATURE 0°C ~ 60°C
- ◆ STORAGE TEMPERATURE -20°C ~ 80°C
- ◆ WEIGHT 280 ±3g

FEATURES

- ◆ VGA OR SVGA INPUTS
- ◆ 6-BIT RGB OUTPUT
- ◆ CONVENIENTLY ADJUST IMAGE BY OPERATING KEYBOARD
- ◆ SUPPORT INTERGRATED PLL TECHNOLOGY
- ◆ LOW POWER COMSUMPTION

APPLICATION SCOPE

- SECURITY
- PC MONITOR
- INDUSTRY CONTROL MONITOR
- POS

DRIVER BOARD INTRODUCTION

1.Brief Diagram (Refer Appendix Page For Details)

2.Port Definition

- CN1 -----Connection port of Driver Board with LCD connector (TTL);
- CN12-----Connection port of Driver Board with LCD connector (FPC);
- CN2-----Connection with LCD (LVDS)
- CN3 -----Keyboard operation port;
- CN4A -----Power input port (DC12V) (2PIN)
- CN4B-----Power input port (DC12V)
- CN5 -----Output port for inverter.

- h) CN6 -----Analog VGA input port (12 pin);
- i) CN7-----Analog VGA input port (15 pin);
- j) CN8 -----Video & S-Video input;
- k) CN9 -----VIDEO;
- l) CN10-----S-VIDEO;
- m) CN11-----TV INPUT
- n) CN14A-----Connection port of AUDIO IN;
- o) CN14B-----Connection port of AUDIO IN;
- p) CN14C-----Connection port of AUDIO IN;
- q) CN15A -----Connection port of SPEAKER OUT;
- r) CN15B-----Connection port of EARPHONE OUT;
- s) VGA CABLE

*** All ports define square pad as the first position in this book.**

3.PIN ASSIGNMENT

CN1: TTL Connector (MOLEX-87758-34 or compatibility)

| | | | | | | | |
|----|-------|----|-------|----|-------|----|-------|
| 1 | GND | 2 | DCLK | 3 | DHS | 4 | DVS |
| 5 | GND | 6 | DRED2 | 7 | DRED3 | 8 | DRED4 |
| 9 | DRED5 | 10 | DRED6 | 11 | DRED7 | 12 | GND |
| 13 | DGRN2 | 14 | DGRN3 | 15 | DGRN4 | 16 | DGRN5 |
| 17 | DGRN6 | 18 | DGRN7 | 19 | GND | 20 | DBLU2 |
| 21 | DBLU3 | 22 | DBLU4 | 23 | DBLU5 | 24 | DBLU6 |
| 25 | DBLU7 | 26 | GND | 27 | DEN | 28 | VCC |
| 29 | VCC | 30 | L/R | 31 | U/D | 32 | NC |
| 33 | NC | 34 | NC | | | | |

CN2: LVDS Connector (MOLEX-87758-12 or compatibility)

| Pin NO | DEF. | Pin NO | DEF. | Pin NO | DEF. | Pin NO | DEF. |
|--------|------|--------|------|--------|-------|--------|-------|
| 1 | VCC | 2 | VCC | 3 | GND | 4 | GND |
| 5 | DA0- | 6 | DA0+ | 7 | DA1- | 8 | DA1+ |
| 9 | DA2- | 10 | DA2+ | 11 | CLK1- | 12 | CLK1+ |

CN12: TTL Connector (Face down: ELCO 6210-30pin)

| Pin NO | DEF. | Pin NO | DEF. | Pin NO | DEF. | Pin NO | DEF. |
|--------|-------|--------|-------|--------|-------|--------|-------|
| 1 | NC | 9 | DRED5 | 17 | DGRN6 | 25 | DBLU7 |
| 2 | DCLK | 10 | DRED6 | 18 | DGRN7 | 26 | GND |
| 3 | DHS | 11 | DRED7 | 19 | GND | 27 | DEN |
| 4 | DVS | 12 | GND | 20 | DBLU2 | 28 | VCC |
| 5 | GND | 13 | DGRN2 | 21 | DBLU3 | 29 | VCC |
| 6 | DRED2 | 14 | DGRN3 | 22 | DBLU4 | 30 | NC |
| 7 | DRED3 | 15 | DGRN4 | 23 | DBLU5 | 31 | NC |
| 8 | DRED4 | 16 | DGRN5 | 24 | DBLU6 | 32 | NC |

CN3: Key Connector (JST B10B-XH-A or compatibility)

| Pin NO | DEF. | Pin NO | DEF. | Pin NO | DEF. |
|--------|-------|--------|--------|--------|-----------|
| 1 | GND | 5 | MENU | 9 | REMOTE |
| 2 | POWER | 6 | LEFT- | 10 | VCC (+5v) |
| 3 | RED | 7 | RIGHT+ | | |
| 4 | GREEN | 8 | ENTER | | |

CN5: Inverter Connector (JST B3B-XH-A or compatibility)

| Pin NO | DEF | Pin NO | DEF | Pin NO | DEF |
|--------|------|--------|-----|--------|--------|
| 1 | +12V | 2 | GND | 3 | On/Off |

CN15A: SPEAKER OUT Connector (JST B4B-XH-A or compatibility)

| Pin NO | DEF. | Pin NO | DEF. | Pin NO | DEF. |
|--------|-------|--------|-------|--------|------|
| 1 | GND | 3 | GND | | |
| 2 | R-OUT | 4 | L-OUT | | |

CN15B: EARPHONE OUT Connector

| Pin NO | DEF. | Pin NO | DEF. | Pin NO | DEF. |
|--------|-------|--------|-------|--------|------|
| 1 | GND | 3 | GND | | |
| 2 | R-OUT | 4 | L-OUT | | |

CN6: 12PIN VGA Connector (JST B12B-PH-K-S or compatibility)

| Pin NO | DEF | Pin NO | DEF | Pin NO | DEF | Pin NO | DEF |
|--------|-----|--------|-------|--------|-----|--------|-----|
| 1 | GND | 4 | GREEN | 7 | GND | 10 | CON |
| 2 | RED | 5 | GND | 8 | HD | 11 | SDA |
| 3 | GND | 6 | BLUE | 9 | VD | 12 | SCL |

CN7: 15PIN VGA Connector

| Pin NO | DEF. | Pin NO | DEF. | Pin NO | DEF. |
|--------|-------|--------|------|--------|------|
| 1 | RED | 6 | GND | 11 | NC |
| 2 | GREEN | 7 | GND | 12 | SDA |
| 3 | BLUE | 8 | GND | 13 | HD |
| 4 | NC | 9 | NC | 14 | VD |
| 5 | GND | 10 | CON | 15 | SCL |

CN8: VIDEO AND S-VIDEO (JST B5B-PH-K-S or compatibility)

| Pin | DEF. | Pin | DEF. | Pin | DEF | Pin | DEF. | Pin | DEF |
|-----|------|-----|-------|-----|-----|-----|------|-----|------|
| 1 | GND | 2 | VIDEO | 3 | GND | 4 | Y-IN | 5 | C-IN |

CN11: 10PIN TV Connector (JST B10B-PH-K-S or compatibility)

| Pin NO | DEF. | Pin NO | DEF. | Pin NO | DEF. |
|--------|----------|--------|----------|--------|------|
| 1 | SCL | 5 | TV AUDIO | 9 | NC |
| 2 | SDA | 6 | NC | 10 | GND |
| 3 | TV VIDEO | 7 | 5V | | |
| 4 | NC | 8 | GND | | |

CN4A: Power Connector (JST B2B-XH-A or compatibility)

| Pin NO | DEF | Pin NO | DEF |
|--------|------|--------|-----|
| 1 | +12V | 2 | GND |

CN14A: AUDIO IN Connector

| Pin NO | DEF. | Pin NO | DEF. | Pin NO | DEF. |
|--------|------|--------|------|--------|------|
| 1 | L-IN | 2 | GND | | |

CN14B: AUDIO IN Connector

| Pin NO | DEF. | Pin NO | DEF. | Pin NO | DEF. |
|--------|-------|--------|------|--------|------|
| 1 | R-OUT | 2 | GND | | |

CN14C: AUDIO IN Connector (JST B4B-XH-A or compatibility)

| Pin NO | DEF. | Pin NO | DEF. | Pin NO | DEF. |
|--------|------|--------|------|--------|------|
| 1 | GND | 3 | GND | | |
| 2 | L-IN | 4 | R-IN | | |

VGA CABLE: VGA INPUT Cable

| Pin NO | DEF. | Pin NO | DEF. | Pin NO | DEF. |
|--------|-------|--------|------|--------|------|
| 1 | RED | 6 | GND | 11 | NC |
| 2 | GREEN | 7 | GND | 12 | NC |
| 3 | BLUE | 8 | GND | 13 | NC |
| 4 | NC | 9 | NC | 14 | NC |
| 5 | GND | 10 | CON | 15 | NC |

INVERTER BOARD INTRODUCTION**1. Brief Diagram (Refer Appendix Page For Details)****2. Port Definition**

CNH1—— High Voltage Output terminal Connected to Back Lamp.

CNH2—— High Voltage Output terminal Connected to Back Lamp.

CN5 —— Inverter Input port connected to Inverter Output Port of Driver.

**CNH1、CNH2 Terminals Supply AC High Voltage For Back Lamp
Which Brightens The LCD Module.**

3. Pin Assignment**CNH1: Output connector adapter to JST BHR-02VS-1**

| Pin NO | DEF | Pin NO | DEF |
|--------|-----|--------|---------|
| 1 | Lv | 2 | Hv 550v |

CN5: Input Connector (JST S4B-XH-A or compatibility)

| Pin NO | DEF | Pin NO | DEF | Pin NO | DEF | Pin NO | DEF |
|--------|---------|--------|-----|--------|--------|--------|------|
| 1 | DC +12V | 2 | GND | 3 | ON/OFF | 4 | Vbrt |

KEY BOARD INTRODUCTION

1. Brief Diagram (Refer Appendix Page For Details)

2. Connector Definition

CN3——This connector connected to key operation port of driver board.

3. OSD Function Description

If you want to get the best effect, an adjustment of keyboard is required.

When first press the “menu” key, OSD enter the menu operation status (the fist item is picture), called nonadjustable status; press enter key, enter the adjustment status and you can adjust the value of the highlight submenu item by press “left” or “right” key; press the “enter” key again you can exit the adjustment status and save the value at the same time. In the nonadjustable status, press the “menu” key could switch menu items. The different menu displayed when input different signal source. The menus item shown as following:

Analog VGA input status:

| MENU ITEM | SUBMENU | DESCRIPTION |
|---------------|----------------|-------------------------------------------------------|
| Picture | Brightness | Adjust the display brightness |
| | Contrast | Adjust the picture contrast |
| | Focus | Adjust the picture scan mode |
| | Clock | Adjust the clock frequency |
| | H-Position | Adjust the picture horizontal position |
| | V-Position | Adjust the picture vertical position |
| Color Setting | Native | Setting the color temperature |
| | C9300 | |
| | C6500 | |
| | User | |
| Function | Input Signal | Select the input signal source: PC-VGA; AV1; AV2; TV. |
| | Language | Select the OSD language: Chinese; English. |
| | OSD H-Position | Adjust the OSD display horizontal position |
| | OSD V-Position | Adjust the OSD vertical position |
| | Reset | Reset the factory defaults |

Analog Video or S-video signal input:

| MENU ITEM | SUBMENU | DESCRIPTION |
|----------------|--------------|--------------------------------------------------------------------------|
| Picture | Brightness | Adjust the display brightness |
| | Contrast | Adjust the picture contrast |
| | Color | Adjust the picture color |
| | Tint | Adjust the picture tint |
| | Sharpness | Adjust the picture sharpness |
| Sound | Volume | Adjust the Audio output AMP |
| System setting | Input Signal | Select the input signal source: PC-VGA; AV1; AV2; TV. |
| | Language | Select the OSD language: Chinese; English. |
| | Blue screen | ON: Non-signal display blue screen. OFF: Non-signal display white screen |

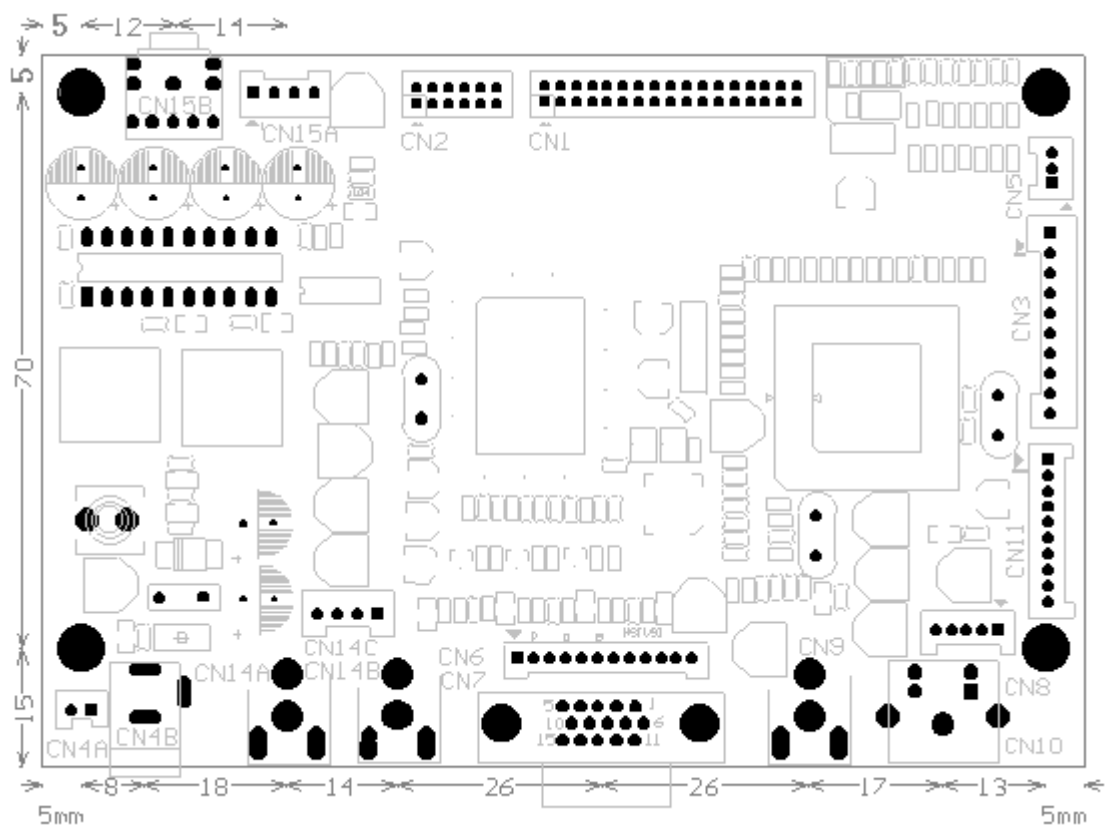
| | | |
|--|-------------|--------------------------------------------------|
| | Rotation | Adjust the OSD display position: Mirror and flip |
| | Wide screen | Switch between 16:9 and 4:3 |

TV signal input:

| MENU ITEM | SUBMENU | DESCRIPTION |
|------------|--------------|---------------------------------|
| TV Setting | Channel | Adjust the TV channel |
| | Color system | Adjust the color |
| | Sound | Select the audio frequency band |
| | Auto search | Auto search TV |

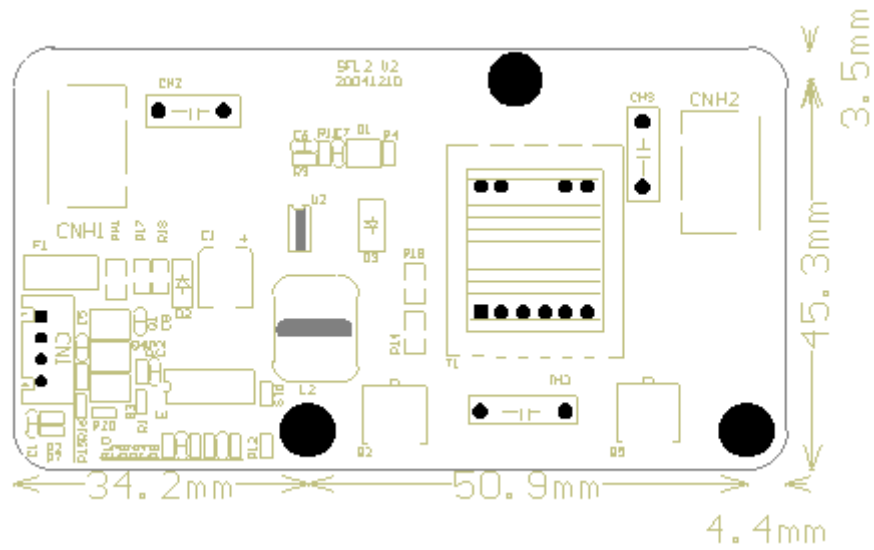
Notes:

- Do as foregoing description if want to get favorite image. But the best state is set before shipment
- Occasional flare of Image may occur when starting the LCD monitor, it is normal pheno mena because of auto adjustment internal.
- Particularly there are snow-flare and bad pictures because that timing does not match with the sequence, please do an auto or handle adjustment.



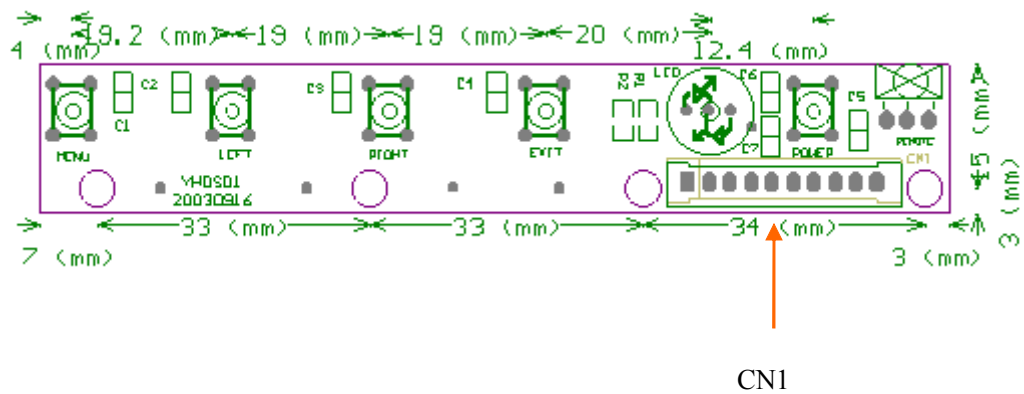
Outline: 132.0*90.0*17.1mm
 Top Layer High (Max): 13.0 mm
 Bottom Layer High (Max): 2.5 mm
 Board Thickness: 1.6mm
 Screws: D3.0mm*4

Inverter Board



Outline: 89.5*48.8*9.1mm
 Top layer High (Max): 7.5mm
 Board Thickness: 1.6mm
 Screws: D 3.0mm

Key Board



Outline: 110.0*18.0*7.1mm
 Top layer High (Max): 5.5 mm
 Board Thickness: 1.6 mm
 Screws: D3.0mm

Appendix Page

