

# **SPECIFICATION**

## **SFD064VT4-VGA**

Customer Approved

Customer \_\_\_\_\_

Date \_\_\_\_\_

By \_\_\_\_\_

Sunful's Confirmation

Approved By \_\_\_\_\_

Prepared By \_\_\_\_\_



Room A ,18/F,Haiying Building ,Fuhua Rd,  
Futian District, Shenzhen.

Tel: +86-755-82911760 82911758

Fax:+86-755-82915120

Date: 2005.1.10



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**GENERAL DESCRIPTION**

- ◆ APPLY TO MULTIPLE LCD MODULE: PD064VT4/5, V16C6448AC/AE/AF.

- ◆ 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

- a) CN1 -----Connection port of Driver Board with LCD connector (TTL);
- b) CN12-----Connection port of Driver Board with LCD connector (FPC);
- c) CN2-----Connection with LCD (LVDS)
- d) CN3 -----Keyboard operation port;
- e) CN4A -----Power input port (DC12V) (2PIN)
- f) CN4B-----Power input port (DC12V)
- g) 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; (Reserve)
- k) CN9 -----VIDEO; (Reserve)
- l) CN10-----S-VIDEO; (Reserve)
- m) CN14A-----Connection port of AUDIO IN; (Reserve)
- n) CN14B-----Connection port of AUDIO IN; (Reserve)
- o) CN14C-----Connection port of AUDIO IN; (Reserve)
- p) CN15A -----Connection port of SPEAKER OUT; (Reserve)
- q) CN15B-----Connection port of EARPHONE OUT; (Reserve)

\* 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 (Bottom Layer: 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
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**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

**CN3: 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.
1	L-IN	2	GND

**CN14B: AUDIO IN Connector**

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.
1	GND	3	GND
2	L-IN	4	R-IN

**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 first 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 menu item shown as following:

#### Analog VGA input status:

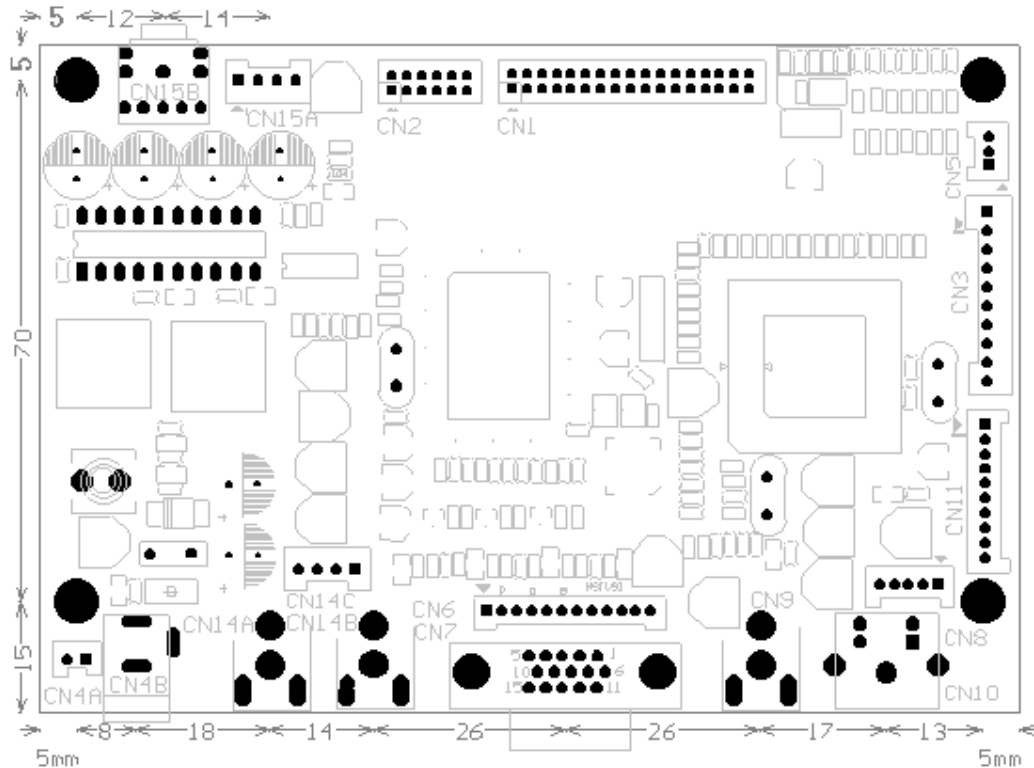
MENU ITEM	SUBMENU	DESCRIPTION
Picture	Brightness	Adjust the display brightness
	Contrast	Adjust the picture contrast
	Focus	Adjust the picture scan mode
	Clock	Adjust the clock frequency
	H-Position	Adjust the picture horizontal position
	V-Position	Adjust the picture vertical position
Color Setting	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

#### 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 phenomena 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.

## MECHANICAL DRAWING

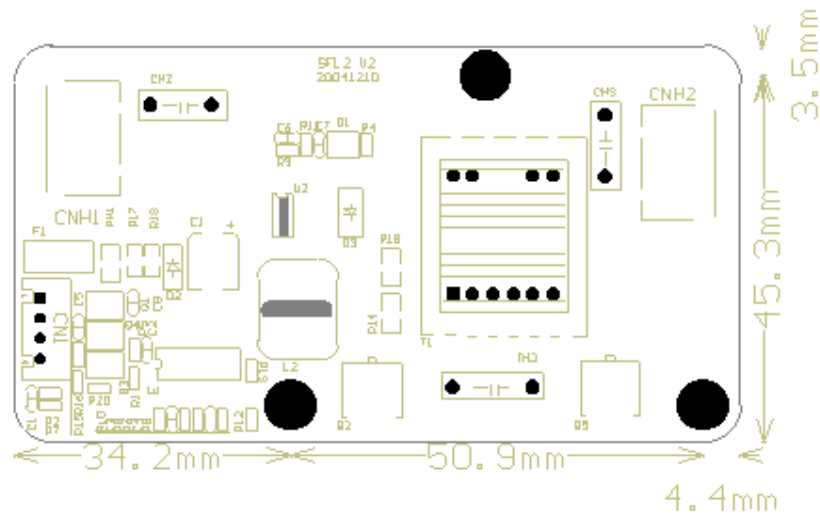
### Driver Board



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

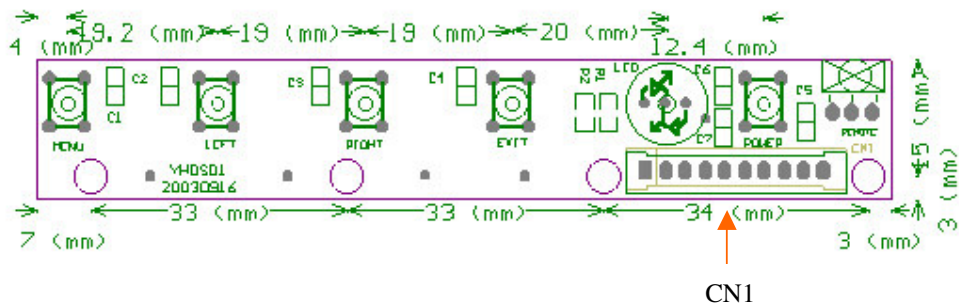


## Inverter Board



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