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Version:2.0

# **SPECIFICATION**

## **SFA040XS1-AV**

Customer Approved

Customer

Date

By

Sunful's Confirmation

Approved By

Prepared By

Date: 2005.1.10

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### **General Description:**

This Color TFT LCD Driving Board apply to drive PVI's PA040XS1 series Color TFT LCD Panel , The Driving Board provides all the Needs to convert Composite video signal to the proper interface of LCD Panel .It can accept PAL and NTSC Video signal input .

### **Features:**

- Fit PRIME VIEW PA040XS1 series TFT LCD
- Ultra Compact
- DC/DC DC/AC Video Decoder All In One
- PAL or NTSC Video input
- Up/Down Display Reverse
- Left/Right Display Reverse
- Single Operation Voltage 12V

### **Applications:**

- Security
- Video Game
- Door Phone
- Video Phone
- Portable TV
- Instrument Display

### **Video input signal:**

- Composite Video Signal 1.0Vp-p 75R

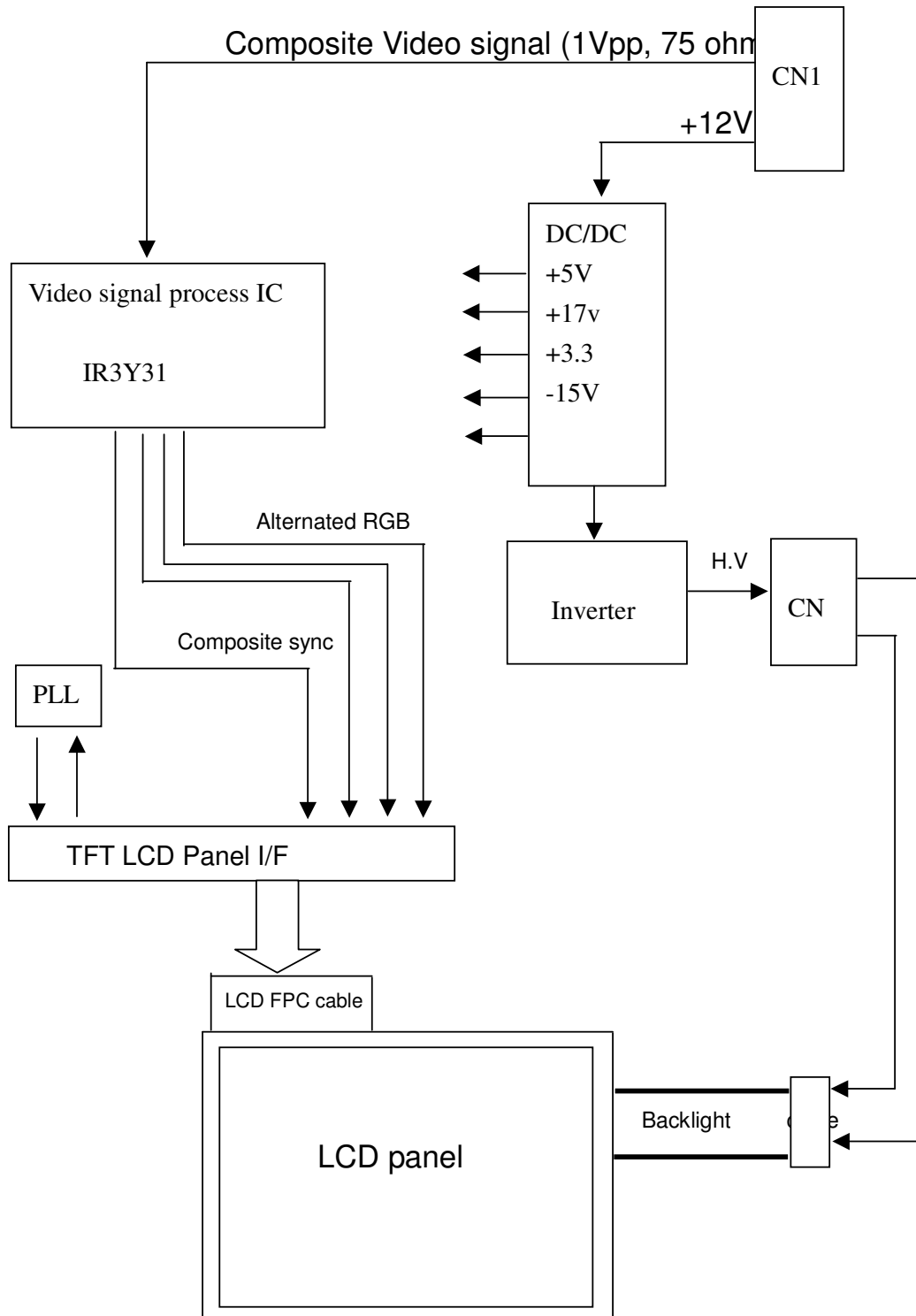
### **Work temperature:**

- 0<sup>0</sup>C—+60<sup>0</sup>C

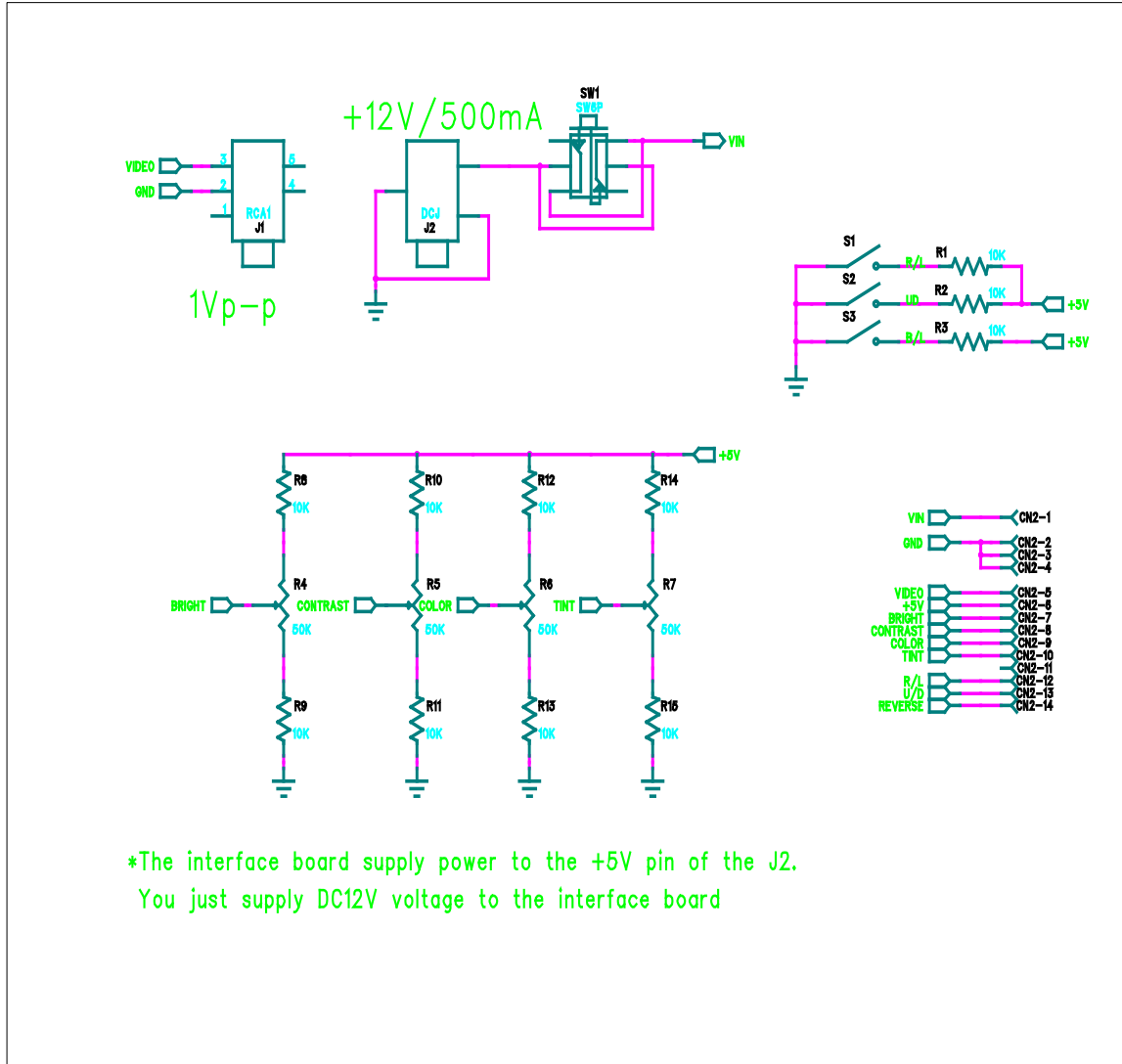
### **Storage temperature:**

- -20<sup>0</sup>C—+80<sup>0</sup>C

## Driving Board Function Block:



## Application Schematic Diagrams



## Electronic Characteristics (CN2)

Pin	Symbol	I/O	Conditions	Min	Typ	Max	Unit
5	Video	I	PAL or NTSC		1		V
1	V in I in P in	I	DC( + )  DC ( +12V )	10	12 450 5.4	14	V mA W
6	Vo Io	O	DC ( + )		5 20		V mA
7	Bright (RGB)	I	DC ( + )	1.5	1.66	2.0	V
8	Contrast	I	DC ( + )	1.8	2.3	2.8	V
9	Color	I	DC ( + )	2.8	3.2	3.6	V
10	Tint	I	DC ( + )	3.0	3.15	3.3	V

### Other VR Default Voltage

Pin	Symbol	I/O	Conditions	Min	Typ	Max	Unit
1	BRT	I	DC( + )	1.5	1.66	2.0	V
2	PIC	I	DC( + )	2.0	2.7	3.0	V

## Input / Output Connector

### 1.) CN2: Power & Video Input Connector

Pin No. : 14 , Pitch : 1.25 mm, Molex 53398-1410 or compatibility

### 2.) CN3: RGB... Input Connector

Pin No. : 9 , Pitch : 1.25 mm, Molex 53398-0910 or compatibility

### 3.) CN1: LCD Signal Output Connector

FPC Down Connector, 28 Pins, Pitch: 0.5 mm

### 4.) CNH1: Backlight Connector

JST BHR-03VS-1, Pin No. : 3 , Pitch : 4 mm or compatibility

## Connector Pin Definition

### CN2 pin definition

No.	Pin Name	I/O	Pin description	Remark
1	Vin	I	+12V power input	
2	GND	I	Power ground	
3	GND	I	Power ground	
4	GND	I	Video signal ground	
5	Video	I	Composite video signal input	
6	+5V	O	For pin7/8/9/10 control purpose	
7	Brightness	I	Brightness control voltage input	
8	Contrast	I	Contrast control voltage input	
9	Color	I	Color control voltage input	
10	Tint	I	Tint control voltage input	
11	N.C.	NC	No connection	Reverse
12	R/L	I	Picture left/right inverse control	NOTE 1
13	U/D	I	Picture up/down inverse control	NOTE 2
14	DIMMER	I	Dimmer (Default Low )	

### CN3 pin definition

No.	Pin Name	I/O	Pin description	Remark
1	Rin	I	Red signal input	
2	Gin	I	Green signal input	
3	Bin	I	Blue signal input	
4	SW	I	Switch (Video/RGB Select)	NOTE 3
5	SYNC IN	I	SYNC Input	
6	SYNC OUT	O	SYNC Output	
7	/HSYNC OUT	O	Reverse HSYNC Output	
8	/VSYNC OUT	O	Reverse VSYNC Output	
9	GND	I	Power Ground	

### (1) CNH1 pin definition

No.	Pin Name	I/O		Remark
1	HV	O	Lamp driving terminal (high voltage)	
2	LV	O	Lamp driving terminal (low voltage)	

### (2) J3 pin definition

Meet PA035XSE series input definition

NOTE 1:

R/L = Hi (+5V) for shift right, Low (GND) for shift left

NOTE 2:

U/D = Hi (+5V) for down, Low (GND) for up

NOTE 3:

VIDEO = Low, High (+5v) for RGB INPUT

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Default states:

- 1) Support video signal input
- 2) support Bright、 Contrast 、 Color and Tint adjustable
- 3) Composite Sync input and could switch to RGB input
- 4) Support OSD input mode (RGB input and HSY/VSY output)

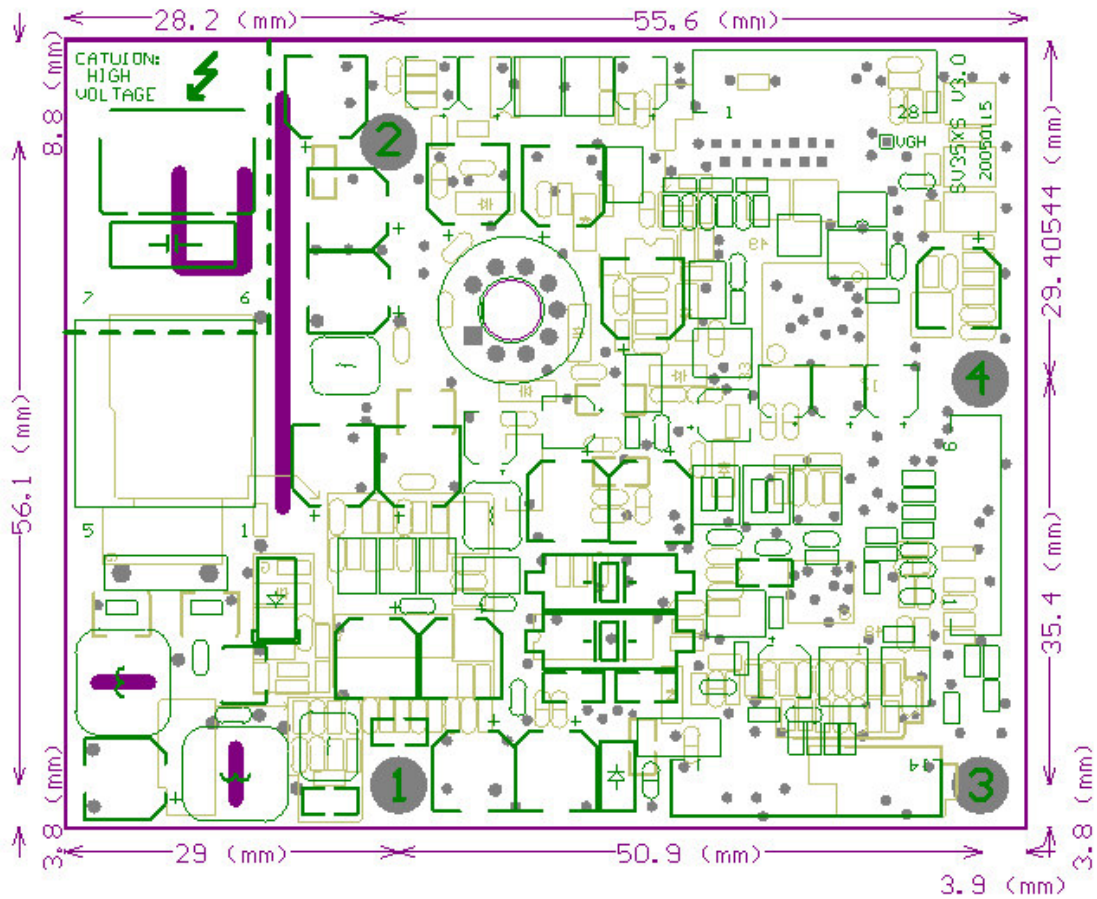
If need support S-video input, the followed operation is needed:

- 1) Open R59 (1K ohm resistor)
- 2) Solder RB1 (75ohm resistor)
- 3) Solder C64 (0.1uF capacitor)
- 4) Open RB2 (0ohm resistor)

If the analog video signal is RGB, the composite synchronization signal is needed.



## Outline Dimension



### Description:

Outline: 84\*68.6\*12mm

Top Layer High (Max): 8.5mm

Board thickness: 1.6mm

Bottom Layer High (Max): 1.5mm

4 Screws: M2.2      Weight: 0.05kg