Version:1.0

SPECIFICATION

SFA025XSB-R

☐ Customer Approved

Customer _____

Date _____

By _____

☐Sunful's Confirmation

Approved By _____

Prepared By _____

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Contents

General Description:

This Color TFT LCD Driving Board apply to drive PVI's PA025XSB 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 PA025XSB 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

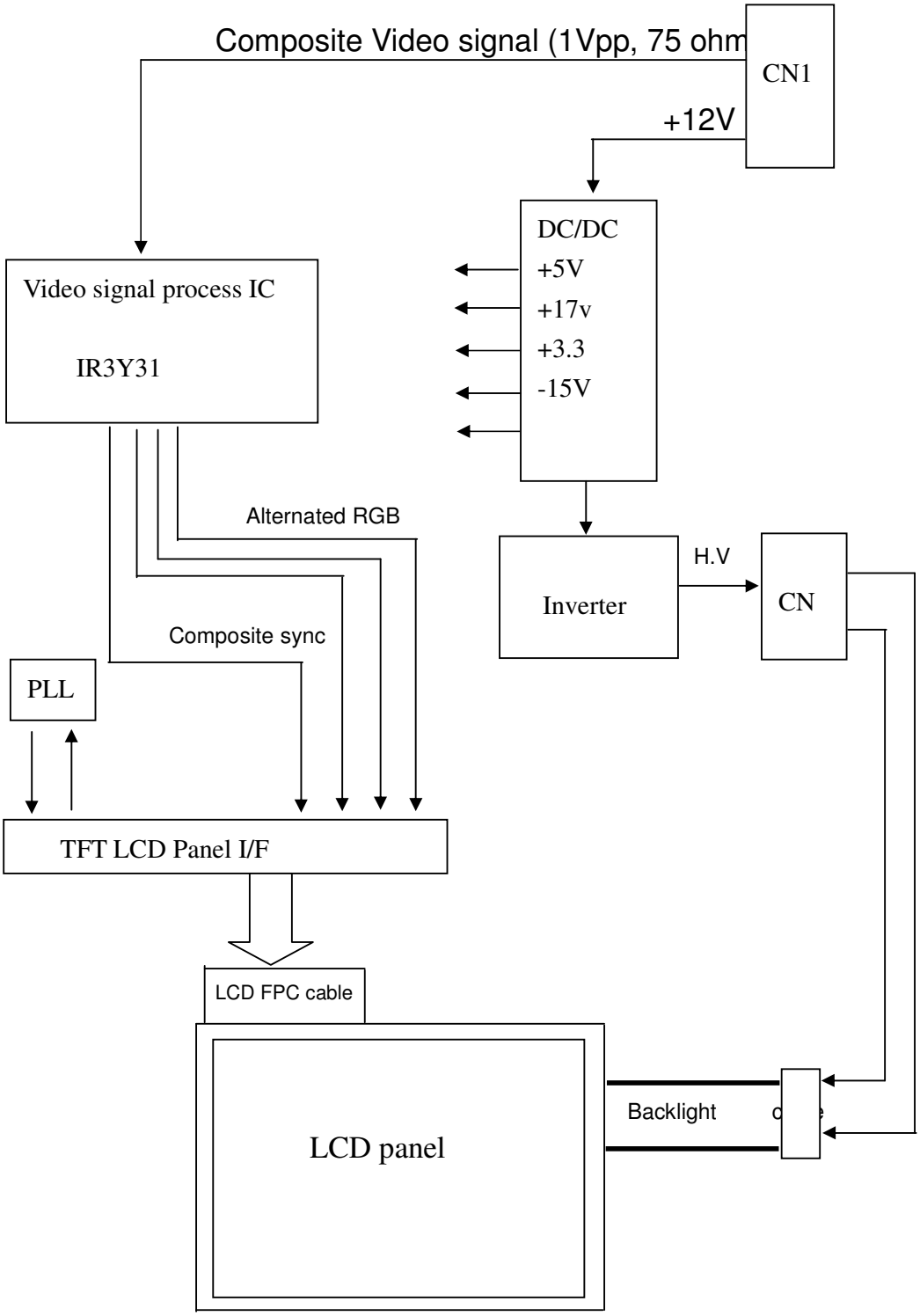
Work temperature:

- 0^0C—+60^0C

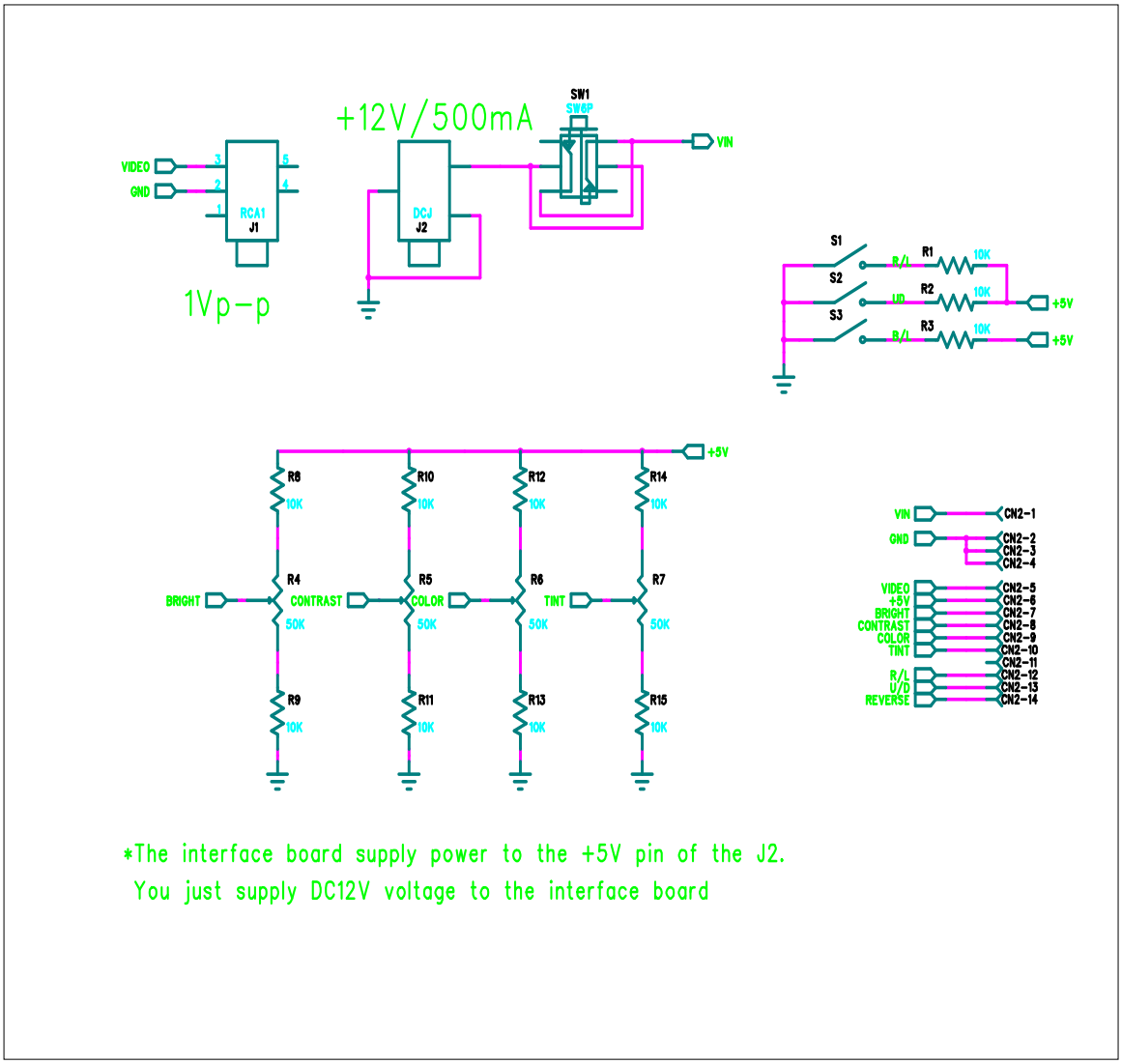
Storage temperature:

- -20^0C—+80^0C

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 PA025XSB 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

Default states:

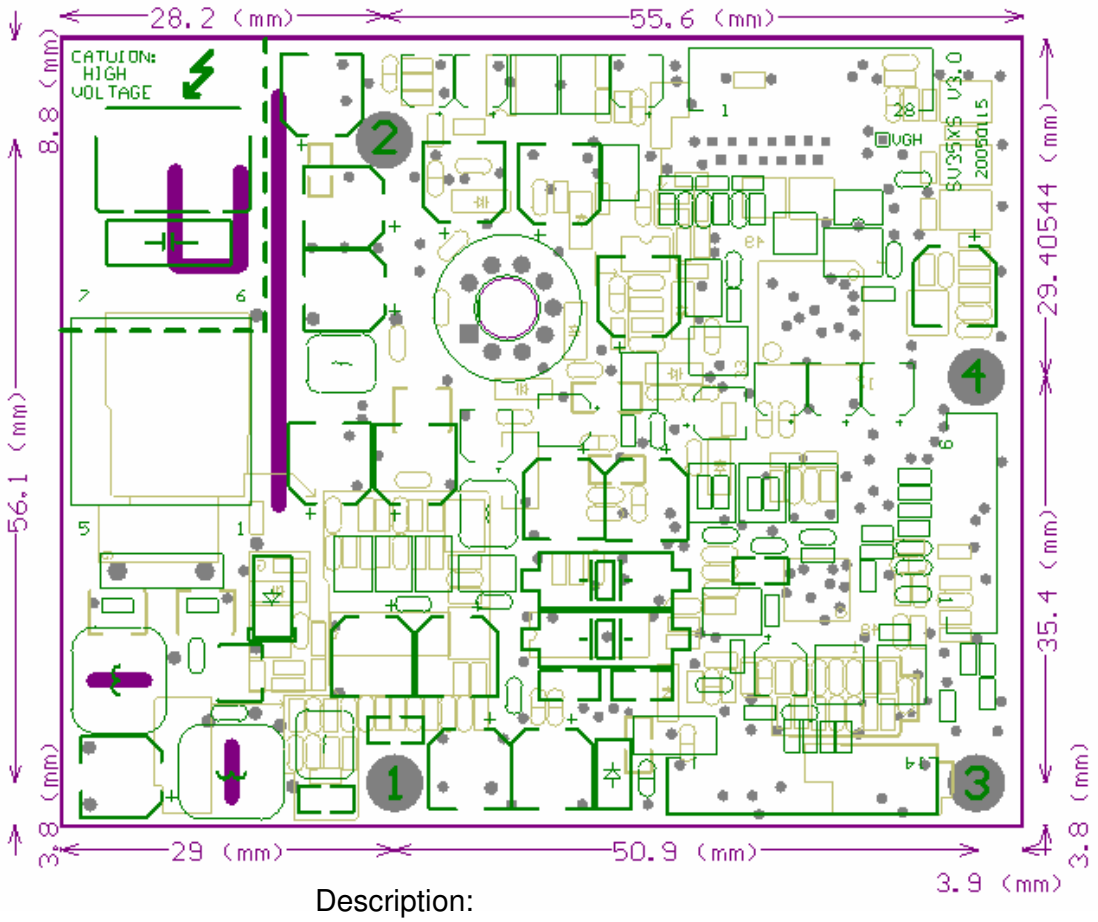
1) Support video signal input
2) support Bright、Contrast 、Color and Tint adjustable
3) Composite Sync input and could switch to RGB input
4) Support OSD input mode (RGB input and HSY/VSY output)

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*16mm

Top Layer High (Max): 8.5mm

Board thickness: 1.6mm

Bottom Layer High (Max): 1.5mm

4 Screws: M2.2 Weight: 0.05kg