International Ltd

Product Specifications

LCD TV control board specification for PT551G

High precision inside…

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RECORD OF REVISIONS

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1 GENERAL DESCRIPTION

The PT551G is a control board of Color Active Matrix Liquid Crystal Display. It is designed to apply the standard LVDS（Low Voltage Differential Signaling）and TTL as the interface method to enables a simple and low-cost implementation in both the board and panel. It can support PAL、NTSC and SECAM TV color system and it can achieve the reappearance of analog RGB input signal under the resolution up to SXGA (1024 vertical by 1280 horizontal pixel array), it can support CVBS、S-VIDEO inputs also.

The PT551G has an audio amplifier which can support 2×2.6W speaker output and it can select the audio channel automatic according to the input signal. It has simple OSD pictures and the operation, the OSD can support multiform language.

2 FEATURES

You can know the detailed feature of the product from you reading this chapter

Input signal	TV	SYSTEM	PAL、NTSC、SECAM
		Frequency Band	48.25 MHz -- 863.25 MHz
	AV	CVBS	1.0Vp-p +/-5%
		S-VIDEO	S-Y： 0.714Vp-p +/-5%； S-C：0.286Vp-p +/-5%
		AUDIO	S-VIDEO and CVBS select the same audio channel, PC have audio channel separate
	Analog RGB	Format	DOS、VGA、SVGA、XGA、SXGA
		Color	24BIT
		H-Frequency	30—80KHz
		V-Frequency	56—75Hz
		PC Audio	Earphone input
Interface	Input	TV	IEC
		CVBS	RCA Jack yellow color
		RGB	D-SUB Jack
		S-VIDEO	S-DIN jack black color
		AV audio	Left：RCA jack white color Right：RCA jack red color
		PC audio	Earphone jack
	Output	PANEL	LVDS ： 30PIN/2.0 Jack TTL ：40PIN/2.0 and 30PIN/2.0 Jack
		audio	Earphone jack Speaker：4PIN/2.54 Jack

Power	Input	DC 12V（+/-0.6V）
	To panel	3.3V/5V/12V
	Operate	Normal and Low power mode
	Manage	Standby power＜3W
Other	Amplifier	2 X 2.6W（4Ω）
	Key definition	AUTO/EXIT、VOL-、VOL+、POWER、CH-、CH+、MENU
	OSD language	English、French、German、Spanish、Italian、Portuguese

3 PRESET MODE FOR VGA INPUT

You will know the preset mode for VGA input from you reading this chapter, It contain pixel format、H-Frequency and V-Frequency.

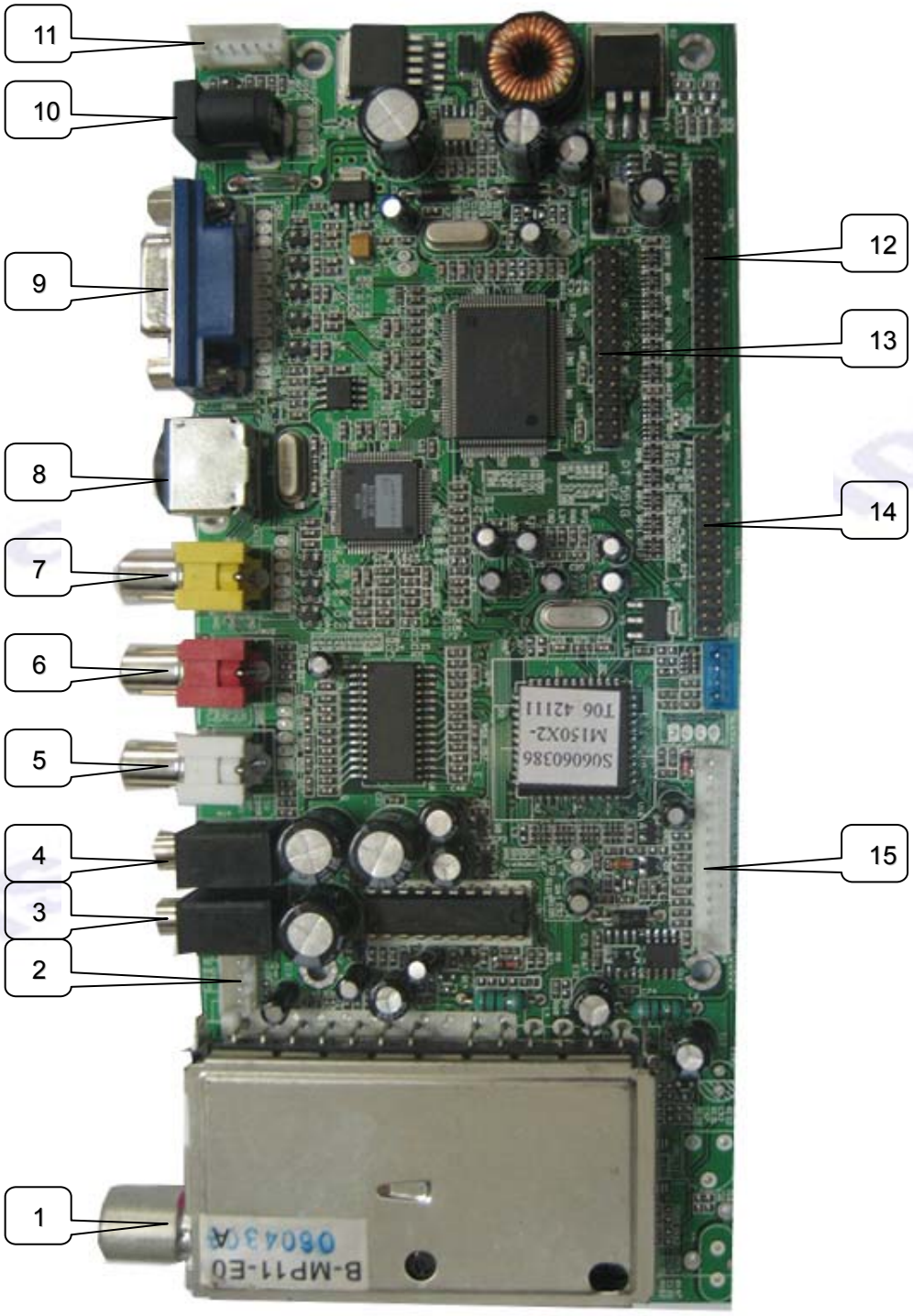
✧ **ANALOG RGB FORMAT TABLE**

Pixel Format	Resolution	Hor. Freq. (KHz)	Vert. Freq. (Hz)	Standard
SXGA	1280X1024	63.5 80.0	60 75	VESA
XGA	1024X768	48.4 56.5 60.0	60 70 75	VESA
SVGA	800X600	37.9 47.2 46.9	60 72 75	VESA
VGA	640X480	31.5 37.9 37.5	60 72 75	VESA
DOS	640X480 720X400	31.5 31.5	60 70	VESA

4 FUNCTION LAYOUT

You will see the control board picture in the chapter, and the interface which you need by the Label

✧ **PICTURE OF CONTROL BOARD**


11
10
9
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1
12
13
14
15

✧ **INTERFACE FUNCITON DESCRIPTION**

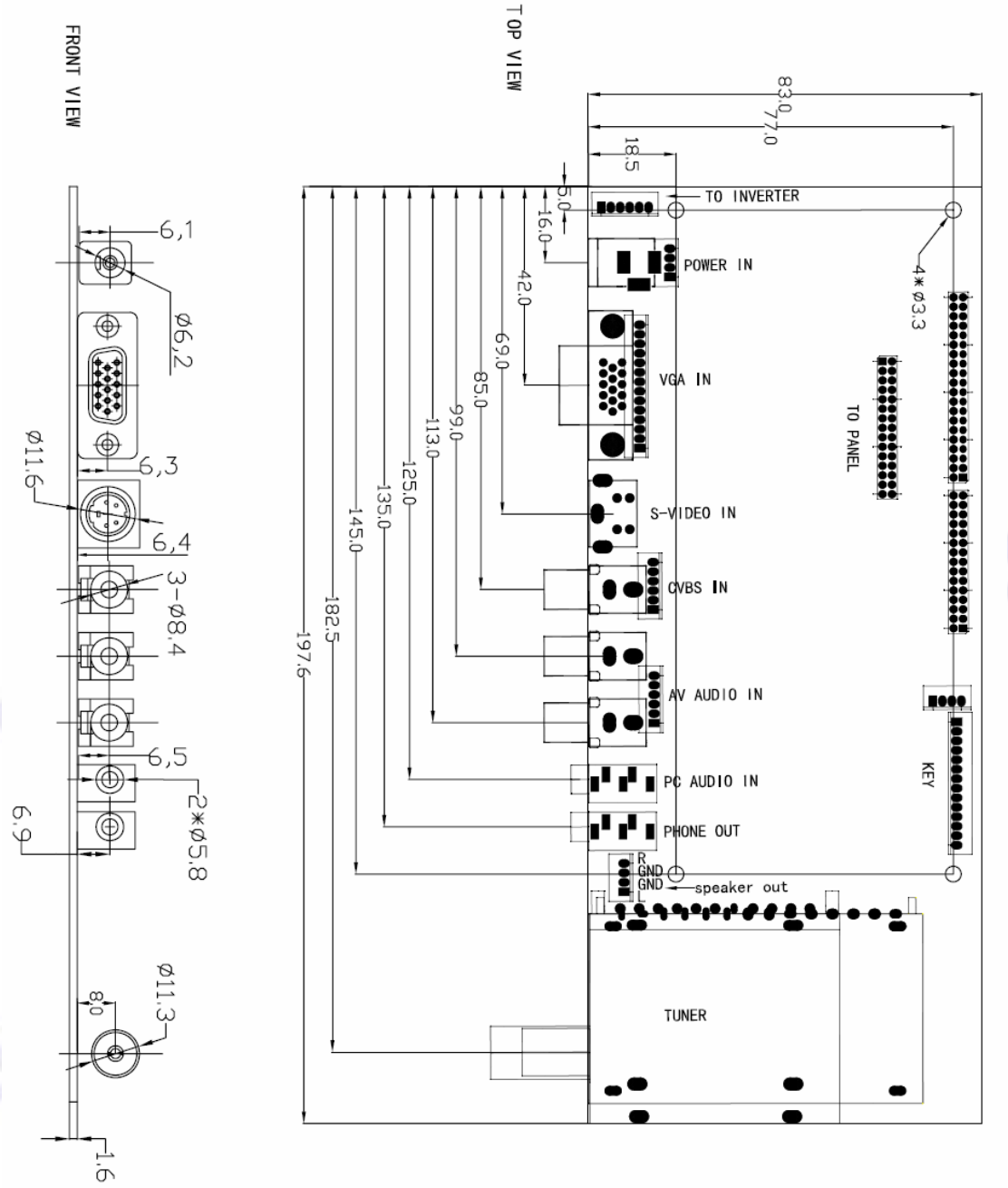
No	Description	No	Description
1	TV Signal Input	9	Analog R、G、B Input
2(CN1)	Speaker Jack	10	Power In
3	PC Audio Output	11(CN7)	Inverter Interface
4	PC Audio Input	12(CN15)	TTL Panel Interface1
5	CVBS Right audio input	13(CN10)	LVDS Panel Interface2
6	CVBS Left audio input	14(CN6)	TTL Panel Interface 3
7	CVBS Signal Input	15(CN4)	Key Board Jack
8	S-VIDEO Signal Input		

5 PCB DIMENSION AND CONFIGURABLE

5.1 PCB DIMENSION

- ✧ **PCB Height =**16.0 mm
- ✧ **PCB Length =** 230.5mm
- ✧ **PCB Width =** 92.0 mm
- ✧ **PCB Screw Bore Size :** Diameter is 3.3 mm

5.2 CONFIGURABLE



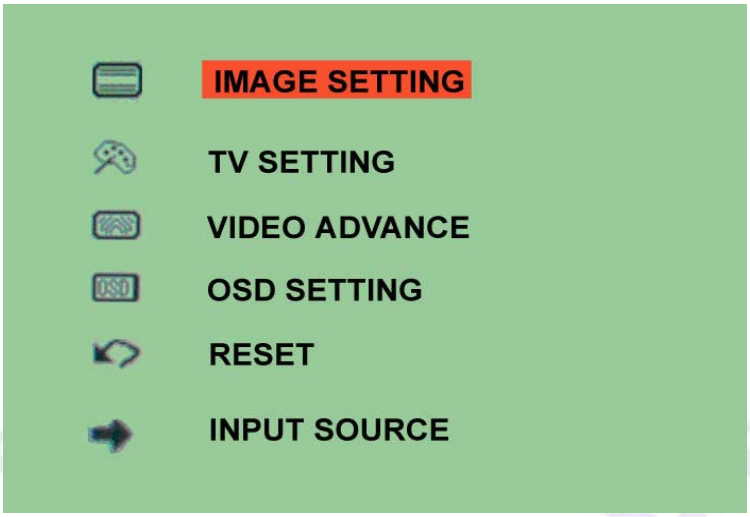
6 TRANSPORT、STORAGE、OPERATION DESCRIPTION

- ✧ **Do not be pressed and distorted**
- ✧ **Keep away from static and water**
- ✧ **Relative Humidity：** ≤80%
- ✧ **Storage Temperature：** -10～+60℃
- ✧ **Operation Temperature：** 0～+40℃

7 OSD 说明

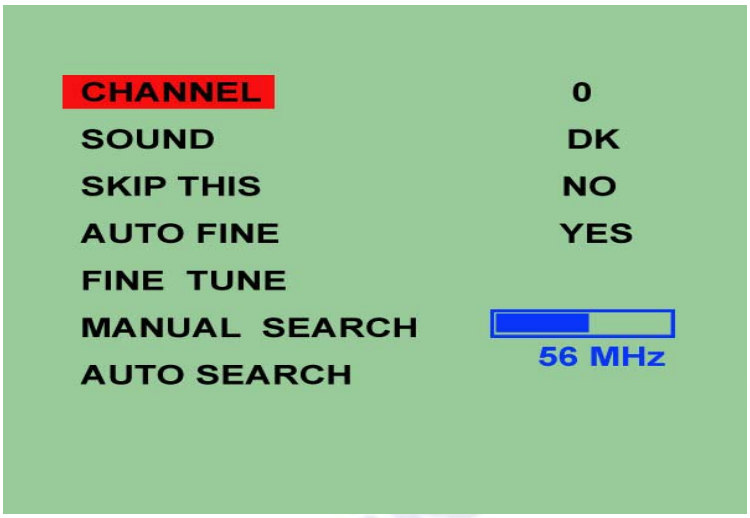
In this chapter ,you will see the general OSD picture of this product , If you want to know the detailed that how to operate OSD function ,you can read the 《OSD User Manual For B.PT753A》that issued by CVT international Ltd.

✧ **MAIN MENU**

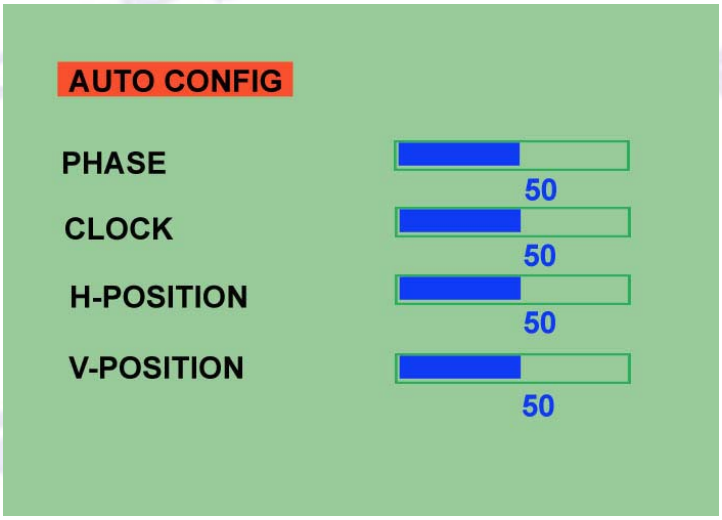


✧ **PICTURE MENU**

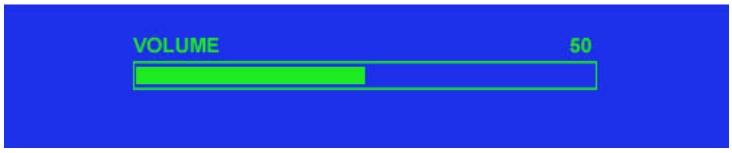
✧ **TV MENU**



✧ **SETUP MENU**



✧ **VOLUME ADJUSTMENT**



8 INTERFACE DEFINITION（From the lest of jack gap in the face is the first number）

✧ **CN7(6PIN/2.0)：INVERTER JACK**

NO	DEFINITION	DESCRIPTION
1	12V	Power Supply

2	12V	Power Supply
3	BL_ON	Black-Light ON/OFF Control
4	ADJ	Brightness Adjustment
5	GND	Ground
6	GND	Ground

✧ **CN1(4PIN/2.0)：SPEAKER JACK**

NO	DEFINITION	DESCRIPTION
1	LSPK	Left Speaker Out
2	GND	Ground
3	GND	Ground
4	RSPK	Right Speaker Out

✧ **CN4（14PIN/2.0）：KEY BOARD JACK**

NO	DEFINITION	DESCRIPTION
1	5v	Power Supply
2	IR	Remote Receive
3	GND	Ground
4	K0	KEY 0
5	R	Red indicator
6	G	Green Indicator
7	GND	Ground
8	K1	KEY 1
9	K2	KEY 2
10	K3	KEY 3
11	K4	KEY 4
12	K5	KEY 5
13	K6	KEY 6
14	K7	KEY 7

✧ **CN13（2 X 15 PIN/2.0）：LVDS TO PANEL JACK**

NO	DEFINITION	DESCRIPTION
1	LCD-VDD	Power for Panel

2	LCD-VDD	Power for Panel
3	LCD-VDD	Power for Panel
4	GND	Ground
5	GND	Ground
6	GND	Ground
7	RXO0-	LVDS ODD 0 - Signal
8	RXO0+	LVDS ODD 0 + Signal
9	RXO1-	LVDS ODD 1 - Signal
10	RXO1+	LVDS ODD 1 + Signal
11	RXO2-	LVDS ODD 2 - Signal
12	RXO2+	LVDS ODD 2 + Signal
13	GND	Ground
14	GND	Ground
15	RXOC-	LVDS ODD Clock - Signal
16	RXOC+	LVDS ODD Clock + Signal
17	RXO3-	LVDS ODD 3 - Signal
18	RXO3+	LVDS ODD 3 + Signal
19	RXE0-	LVDS EVEN 0 - Signal
20	RXE0+	LVDS EVEN 0 + Signal
21	RXE1-	LVDS EVEN 1 - Signal
22	RXE1+	LVDS EVEN 1 + Signal
23	RXE2-	LVDS EVEN 2 - Signal
24	RXE2+	LVDS EVEN 2 + Signal
25	GND	Ground
26	GND	Ground
27	RXEC-	LVDS EVEN Clock - Signal
28	RXEC+	LVDS EVEN Clock + Signal
29	RXE3-	LVDS EVEN 3 - Signal
30	RXE3+	LVDS EVEN 3 + Signal

✧ **CN15（2 X 40 PIN/2.0）：TTL TO PANEL JACK**

NO	DEFINITION	DESCRIPTION
1	LVDS-VDD	Power for LVDS
2	LCD-VDD	Power for Panel

3	LCD-VDD	Power for Panel
4	LCD-VDD	Power for Panel
5	GND	
6	GND	
7	D-VSYNC	Display Vertical Sync for Panel
8	GND	
9	D-HSYNC	Display Horizontal Sync for Panel
10	GND	
11	D-DE	Display Data Enable for Panel
12	GND	
13	RA0	Display Port A Red Output Bit 0
14	RA1	Display Port A Red Output Bit 1
15	RA2	Display Port A Red Output Bit 2
16	RA3	Display Port A Red Output Bit 3
17	RA4	Display Port A Red Output Bit 4
18	RA5	Display Port A Red Output Bit 5
19	RA6	Display Port A Red Output Bit 6
20	RA7	Display Port A Red Output Bit 7
21	GND	
22	GA0	Display Port A Green Output Bit 0
23	GA1	Display Port A Green Output Bit 1
24	GA2	Display Port A Green Output Bit 2
25	GA3	Display Port A Green Output Bit 3
26	GA4	Display Port A Green Output Bit 4
27	GA5	Display Port A Green Output Bit 5
28	GA6	Display Port A Green Output Bit 6
29	GA7	Display Port A Green Output Bit 7
30	GND	
31	GA0	Display Port A Blue Output Bit 0
32	GA1	Display Port A Blue Output Bit 1
33	GA2	Display Port A Blue Output Bit 2
34	GA3	Display Port A Blue Output Bit 3
35	GA4	Display Port A Blue Output Bit 4

36	GA5	Display Port A Blue Output Bit 5
37	GA6	Display Port A Blue Output Bit 6
38	GA7	Display Port A Blue Output Bit 7
39	GND	
40	D-SHCLK	Display Clock for Panel

✧ **CN11（2 X 15 PIN/2.0）：TTL TO PANEL JACK**

NO	DEFINITION	DESCRIPTION
1	GND	
2	GND	
3	D-SHCLK	Display Clock for Panel
4	GND	
5	RB0	Display Port B Red Output Bit 0
6	RB1	Display Port B Red Output Bit 1
7	RB2	Display Port B Red Output Bit 2
8	RB3	Display Port B Red Output Bit 3
9	RB4	Display Port B Red Output Bit 4
10	RB5	Display Port B Red Output Bit 5
11	RB6	Display Port B Red Output Bit 6
12	RB7	Display Port B Red Output Bit 7
13	GND	
14	GB0	Display Port B Green Output Bit 0
15	GB1	Display Port B Green Output Bit 1
16	GB2	Display Port B Green Output Bit 2
17	GB3	Display Port B Green Output Bit 3
18	GB4	Display Port B Green Output Bit 4
19	GB5	Display Port B Green Output Bit 5
20	GB6	Display Port B Green Output Bit 6
21	GB7	Display Port B Green Output Bit 7
22	GND	
23	GB0	Display Port B Blue Output Bit 0
24	GB1	Display Port B Blue Output Bit 1
25	GB2	Display Port B Blue Output Bit 2
26	GB3	Display Port B Blue Output Bit 3

27	GB4	Display Port B Blue Output Bit 4
28	GB5	Display Port B Blue Output Bit 5
29	GB6	Display Port B Blue Output Bit 6
30	GB7	Display Port B Blue Output Bit 7