



PRODUCT SPECIFICATION

Multi Purpose LCD TV Controller Board

Model: TSU26/36 V6.0

Date: July, 2010

By Pandtronics

1.GENERAL DESCRIPTION

TSU26/36 V6.0 is a multi-purpose LCD controller, it is suitable Asia market. It is designed to support dual/single LVDS of 14-32 inch LCD panel.

TSU26 V6.0 can support HDMI (Option), AV,PC-RGB, S-Video, DVD (Option), YPBPR,TV signal input .

2.FEATURES

Below you will find the detailed feature

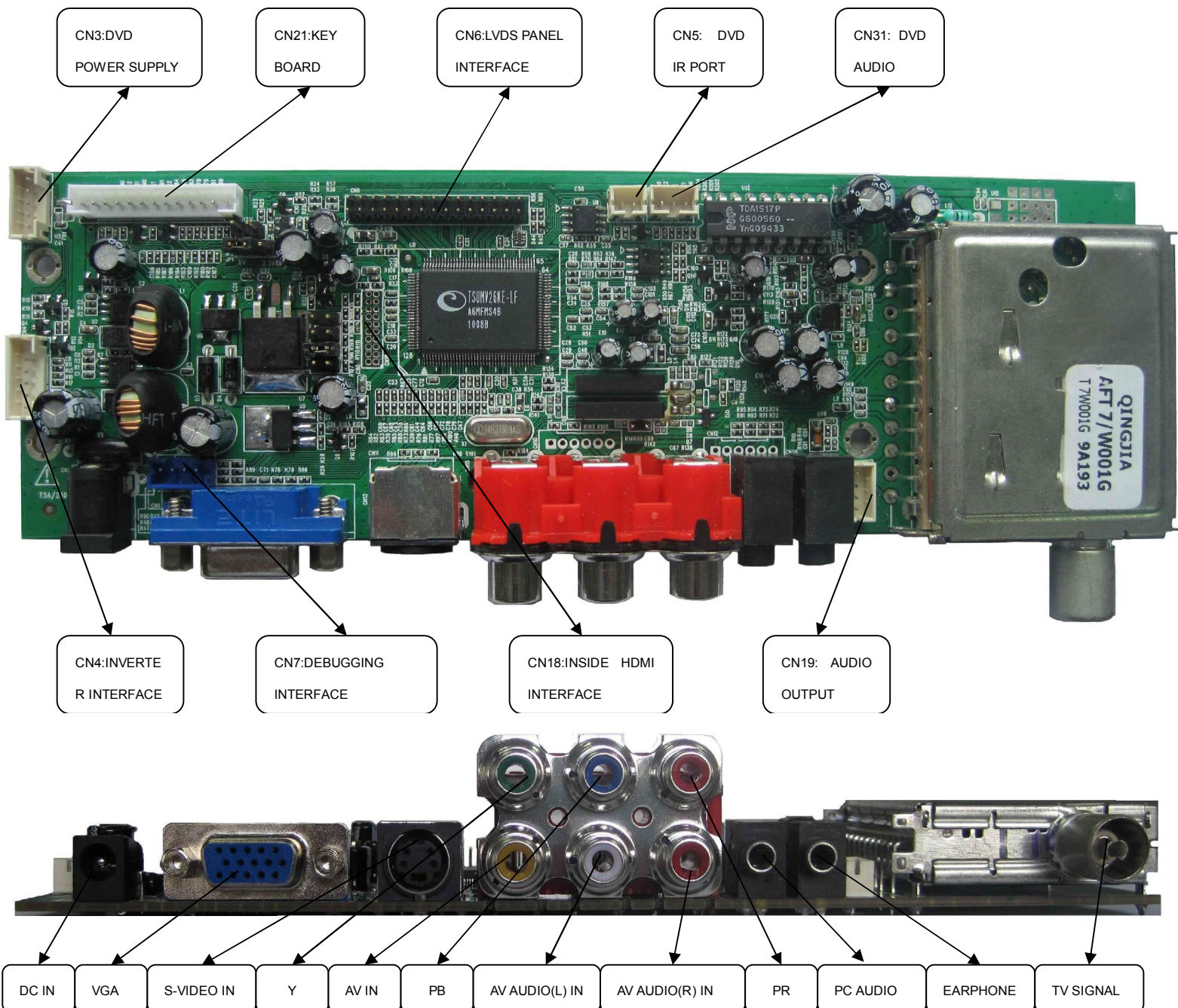
Video Input	TV	VIDEO SYSTEM		PAL/SECAM, NTSC
		SOUND SYSTEM		BG ,DK ,I
		RECEIVE CHANNEL		127
	S-Video	S-Y:1.0V Vp-p +/-5% S-C:0.3Vp-p +/-5%		
	CVBS	1.0Vp-p +/-5%		
	YPbPr / YCbCr	480i、480p、576i、576p、720p、1080i、1080p		
	PC-RGB	Format	Up to 1920*1080@60HZ	
		Color	16bit, 24bit, 32bit	
HDMI	480i、480p、576i、576p、720p、1080i、1080p			
Expansion function	USB/Card reader	NO		
	Inbuilt DVD	DVD:video and audio input		
Audio input	S-Video/CVBS	Left and right audio input		
	PC-RGB and YUV	Pc: Earphone input		
Power	Power requirement	12V		
	To panel	3.3V,5V,12V		
	Manage	Low power consumable mode: standby≤3w		
OSD Language	English, Chinese			
Key Functions	CH-,CH+,MENU,VOL-,VOL+,SOURCE ,ON/OFF(Control by remote control)			
Audio Output	2*2w@ 8Ω			
Comb Filter	2D	De-interlace	TSU26(2D),TSU36(3D)	
Weak signal enhancement	/			
Noise reduction	/			
PIP	NO			
EPG	NO			
NICAM/A2, Teletext	NO			
Panel Resolutions	Up to1920*1080@60HZ			
Terminals	Input	TV Input	1 IEC 75 Ω	
		PC-RGB Input	1D-SUB 15PIN terminal blue color	
		S-Video Input	1S-Video terminal black color	
		CVBS Input	1RCA terminal yellow color	
		YPbPr Input	3RCA terminal green color, blue color and red	

			color
		HDMI Input	/
		CVBS and YPbPr Audio Input	2RCA terminal white color, red color
		PC-RGB Audio Input	1 earphone terminal black color
	Output	To Panel	Double LVDS 30PIN/2.0 jack

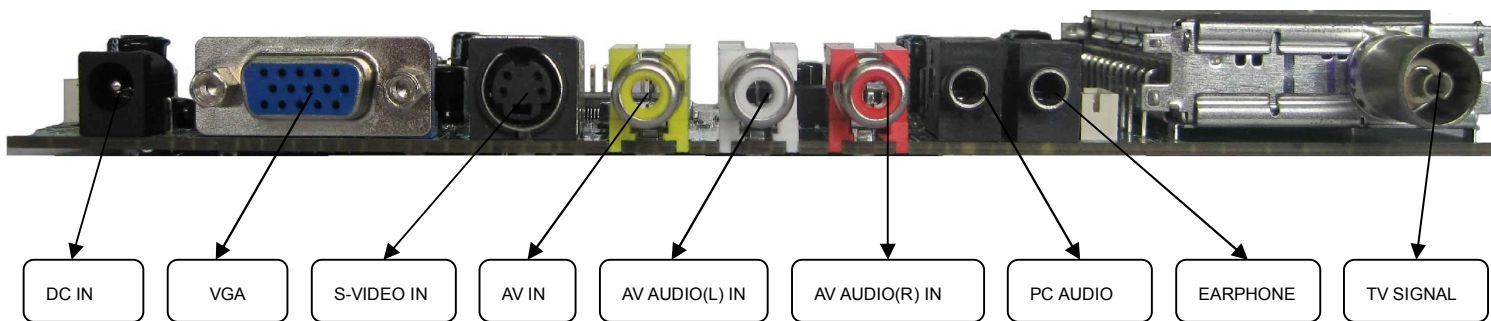
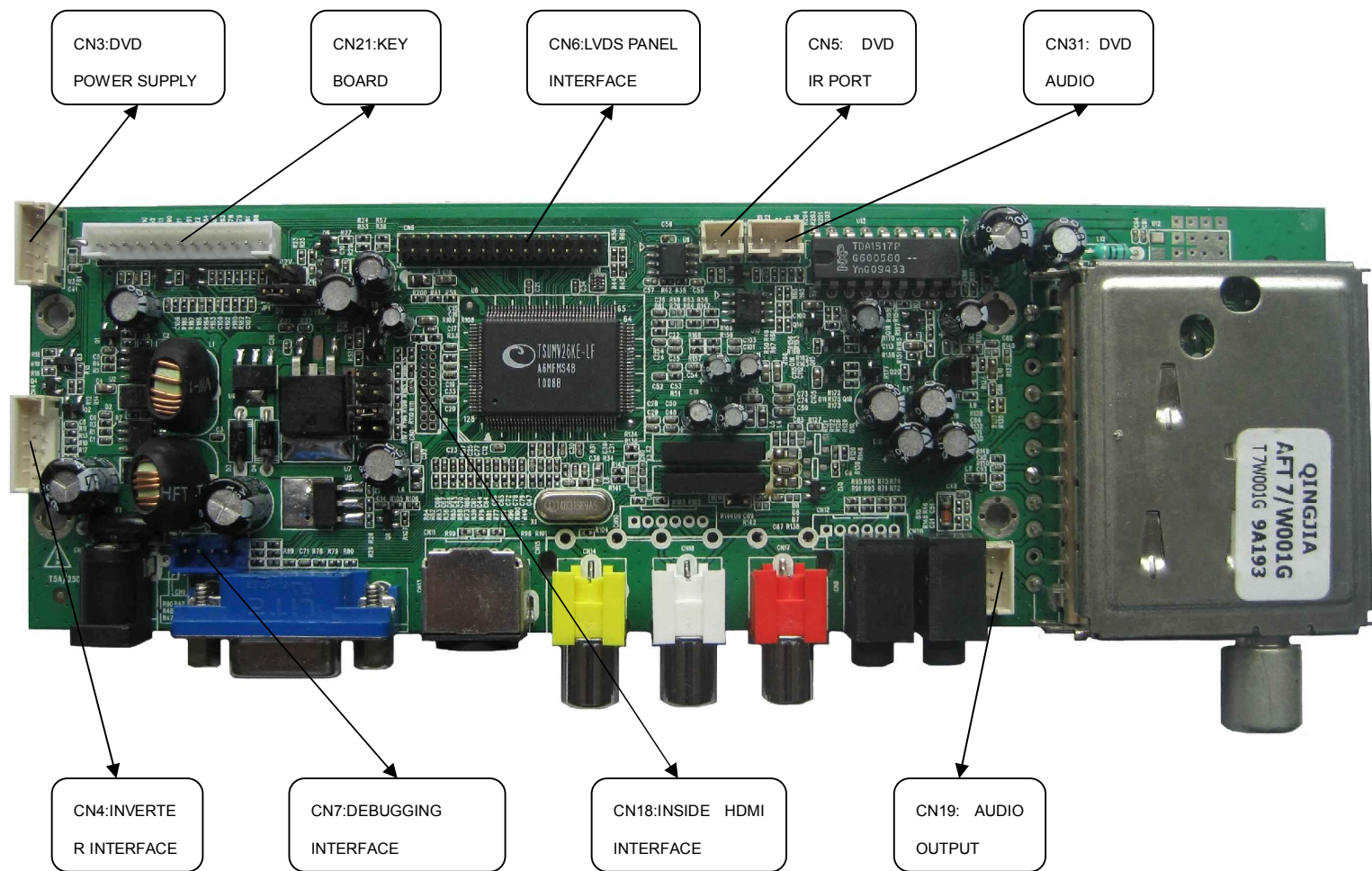
3 .FUNCTION LAYOUT

PICTURE OF LCD CONTROLLER

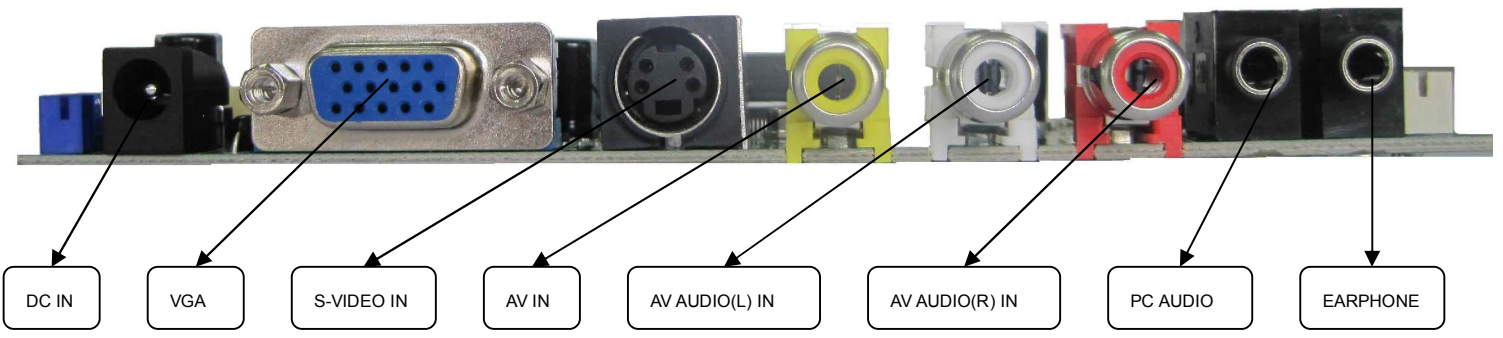
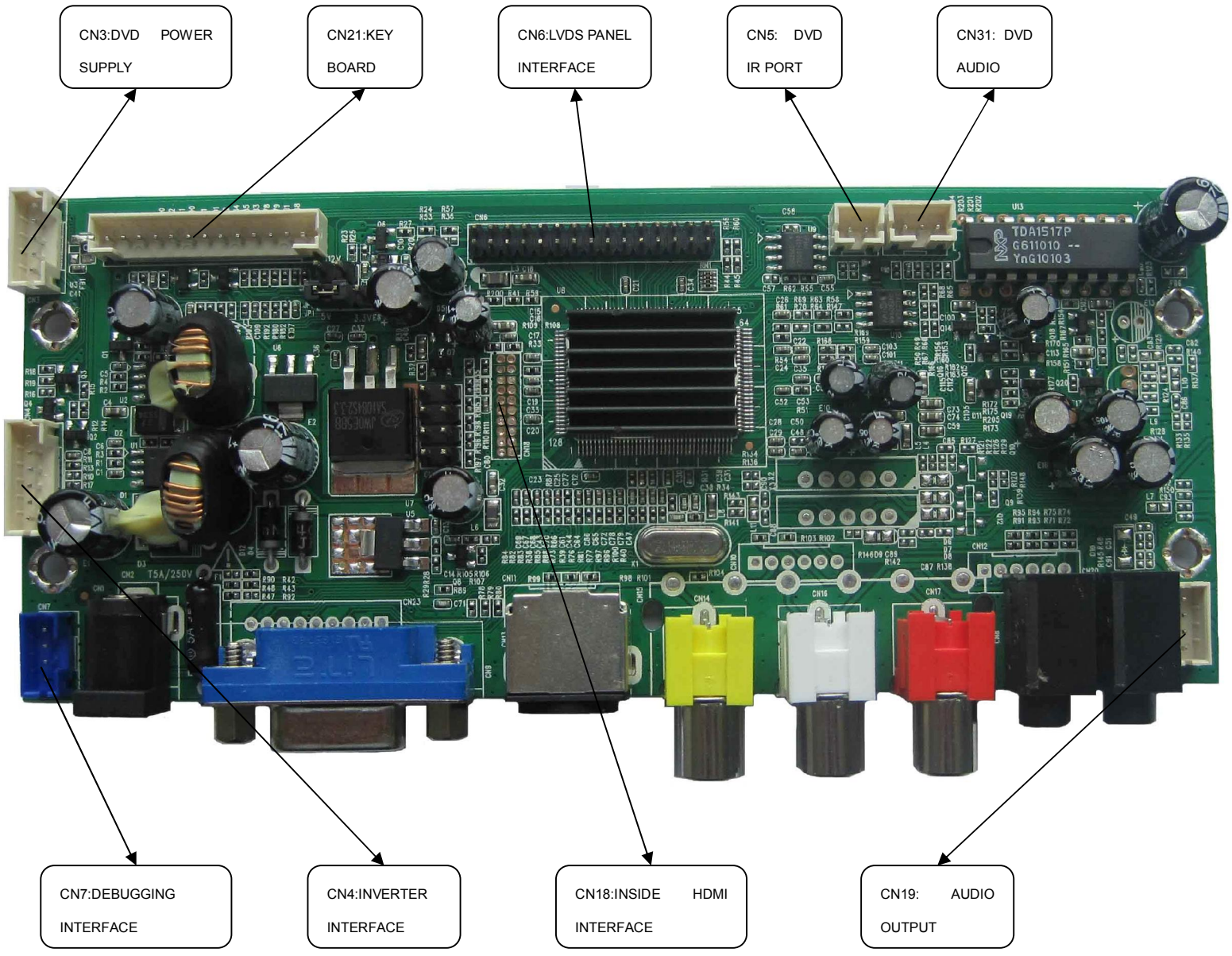
TWO-DOUBLE TV BOARD



SINGLE-LAYER TV BOARD



AV BOARD



(The color of actual item may vary and the image is only for information)

INTERFACE DEFINITION

Below ,please see the symbol and description from left to right pin

CN3 (5PIN/2.0) DVD POWER SUPPLY

NO.	SYMBOL	DESCRIPTION
1	12V	DVD +12V DC Power supply
2	GND	Ground
3	GND	
4	5V_DVD	DVD +5V DC Power supply
5	5V_DVD	

CN4 (6PIN/2.0) INVERTER INTERFACE

NO.	SYMBOL	DESCRIPTION	ELECTRIC CHARACTER
1	GND	Ground	---
2	GND		
3	ADJ	Brightness adjustment	0-5V adjustable
4	BKL	Black-light ON/OFF control	5V , 1K ohm output impedance
5	12VA	+12V DC Power supply	INVERTER Power Supply
6	12VA		

CN5 (2PIN/2.0) DVD IR PORT

NO.	SYMBOL	DESCRIPTION
1	IR	DVD IR
2	GND	Ground

CN6 (2*15PIN/2.0) LVDS PANEL INTERFACE

NO.	SYMBOL	DESCRIPTION
1	VDD	Power for panel
2	CT	mode pin for panel
3	VDD	Power for panel
4	GND	Ground
5	GND	
6	GND	
7	RX0-	LVDS ODD 0- Signal
8	RX0+	LVDS ODD 0+ Signal
9	RX1-	LVDS ODD 1- Signal
10	RX1+	LVDS ODD 1+ Signal
11	RX2-	LVDS ODD 2- Signal
12	RX2+	LVDS ODD 2+ Signal
13	GND	Ground
14	GND	
15	RCK-	LVDS ODD Clock- Signal
16	RCK+	LVDS ODD Clock+ Signal
17	RX3-	LVDS ODD 3- Signal

18	RX3+	LVDS ODD 3+ Signal
19	RE0-	LVDS EVEN 0- Signal
20	RE0+	LVDS EVEN 0+ Signal
21	RE1-	LVDS EVEN 1- Signal
22	RE1+	LVDS EVEN 1+ Signal
23	RE2-	LVDS EVEN 2- Signal
24	RE2+	LVDS EVEN 2+ Signal
25	GND	Ground
26	GND	
27	REC-	LVDS EVEN Clock- Signal
28	REC+	LVDS EVEN Clock+ Signal
29	RE3-	LVDS EVEN 3- Signal
30	RE3+	LVDS EVEN 3+ Signal

CN7 (4PIN/2.0) ATV DEBUGGING INTERFACE

NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	UART-TX	Transmit data
3	UART-RX	Receive data
4	5VS	+5V DC Power supply

CN18(2*10PIN/2.0) INSIDE HDMI INTERFACE

NO.	SYMBOL	DESCRIPTION
1	DAT2+	DATA 2+ signal
2	5VS	HDMI power supply
3	DAT2-	DATA 2- signal
4	GND	Ground
5	DAT1+	DATA 1+ signal
6	GND	Ground
7	DAT1-	DATA 1- signal
8	NC	NC
9	DAT0+	DATA 0+signal
10	GND	Ground
11	DAT0-	DATA 0- signal
12	NC	NC
13	CLK+	HDMI clock+ signal
14	HPD	HDMI control signal
15	CLK-	HDMI clock- signal
16	GND	Ground
17	DDC_SCL	I2C bus for SCL
18	NC	NC
19	DDC_SDA	I2C bus for SDA
20	NC	NC

CN19 (4PIN/2.0) AUDIO OUTPUT

NO.	SYMBOL	DESCRIPTION
1	AMP_R	Right audio channel output
2	GND	Ground
3	GND	
4	AMP_L	Left audio channel output

CN21 (13PIN/2.0) KEY BOARD

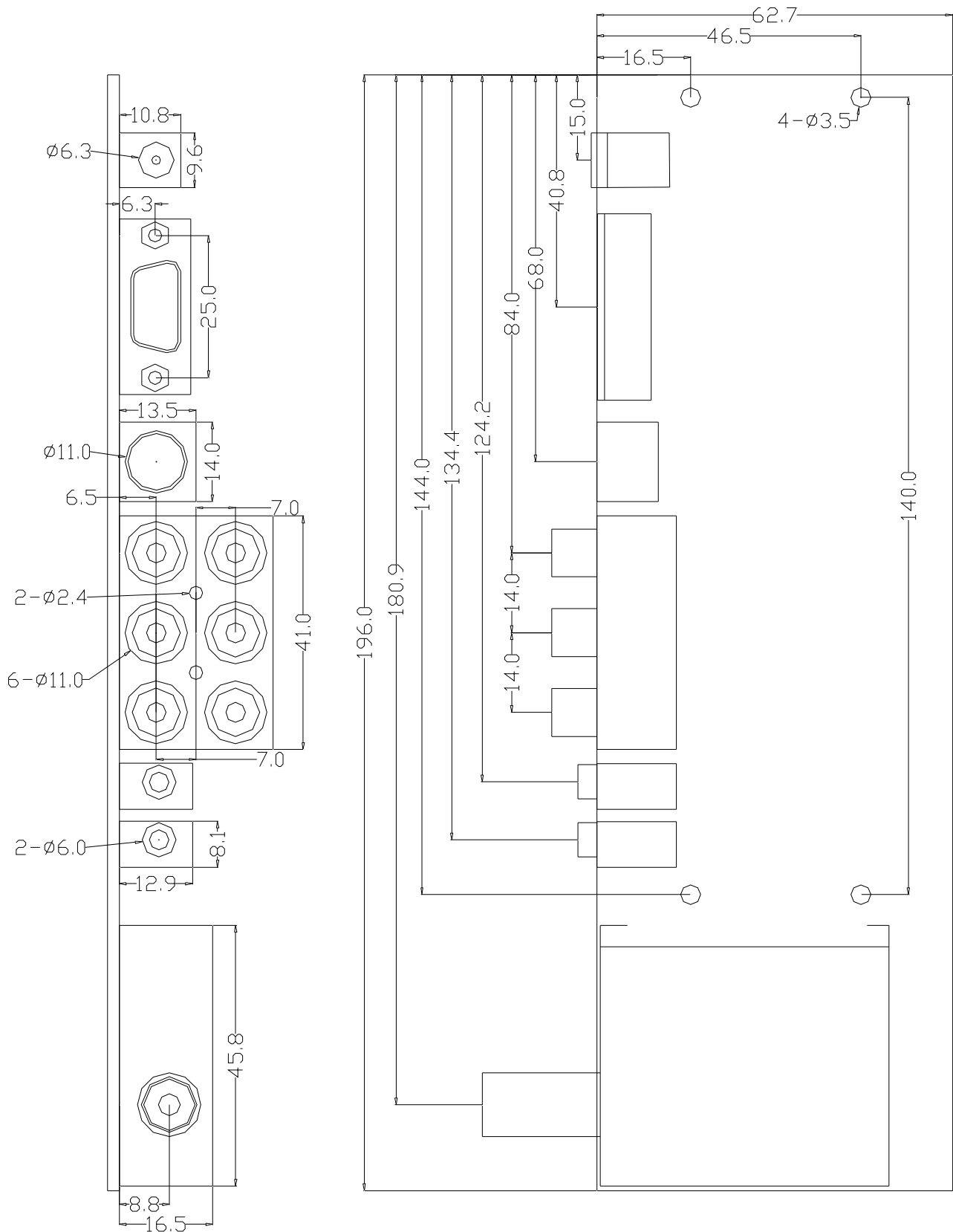
NO.	SYMBOL	DESCRIPTION
1	CH-	CH- key
2	CH+	CH+ Key
3	MENU	MENU Key
4	SOURCE	SOURCE Key
5	VOL-	VOL- Key
6	VOL+	VOL+ Key
7	GND	Ground
8	LED_G	Green indicator
9	LED_R	Red indicator
10	POWER	ON/OFF key
11	GND	Ground
12	IR_IN	Remote receiver
13	IR_VCC	IR power supply

CN31 (3PIN/2.0) DVD AUDIO

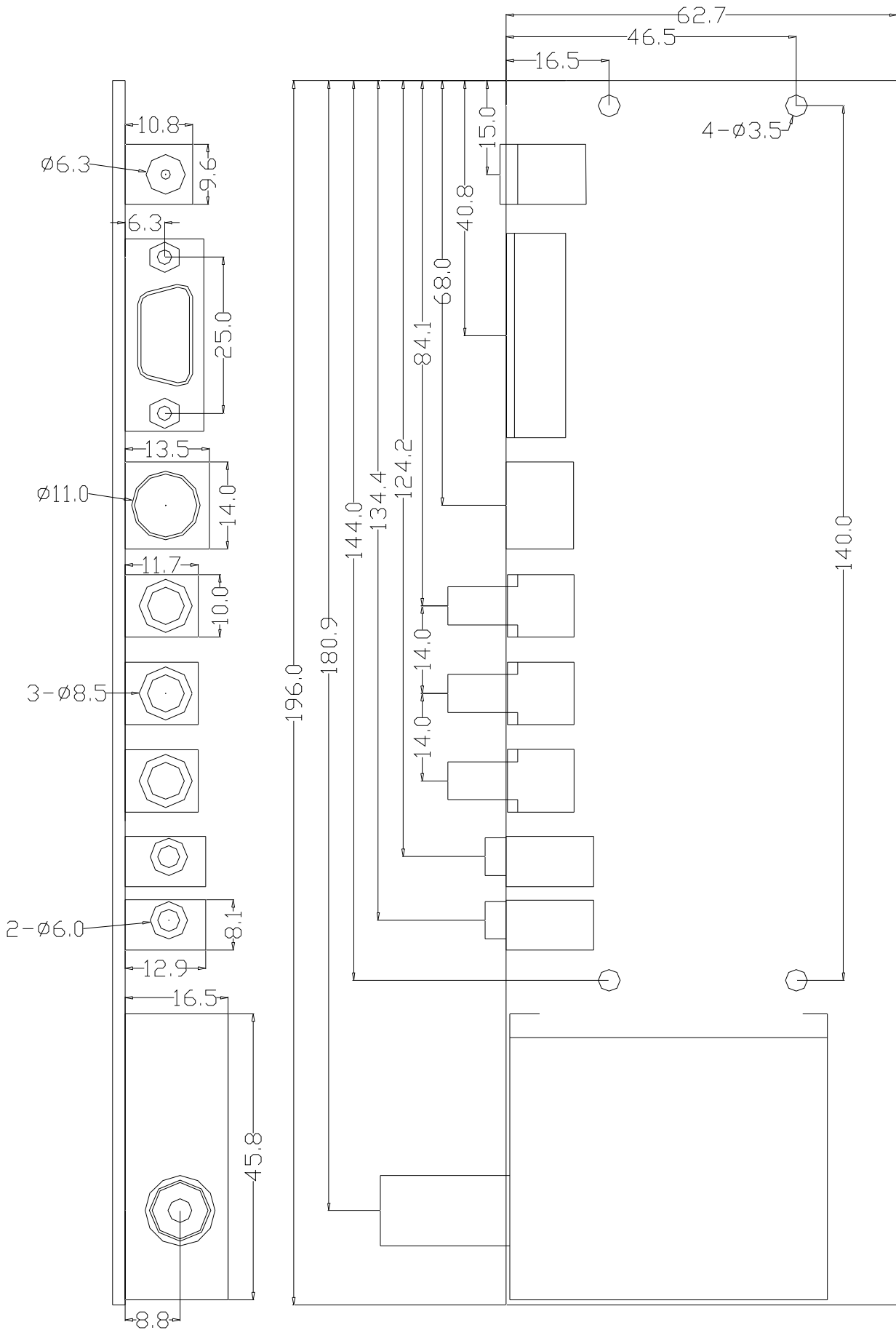
NO.	SYMBOL	DESCRIPTION
1	Y_RIN	DVD YPBPR AUDIO(right)
2	GND	Ground
3	Y_LIN	DVD YPBPR AUDIO(left)

4. CONTROLLER DIMENSIONS

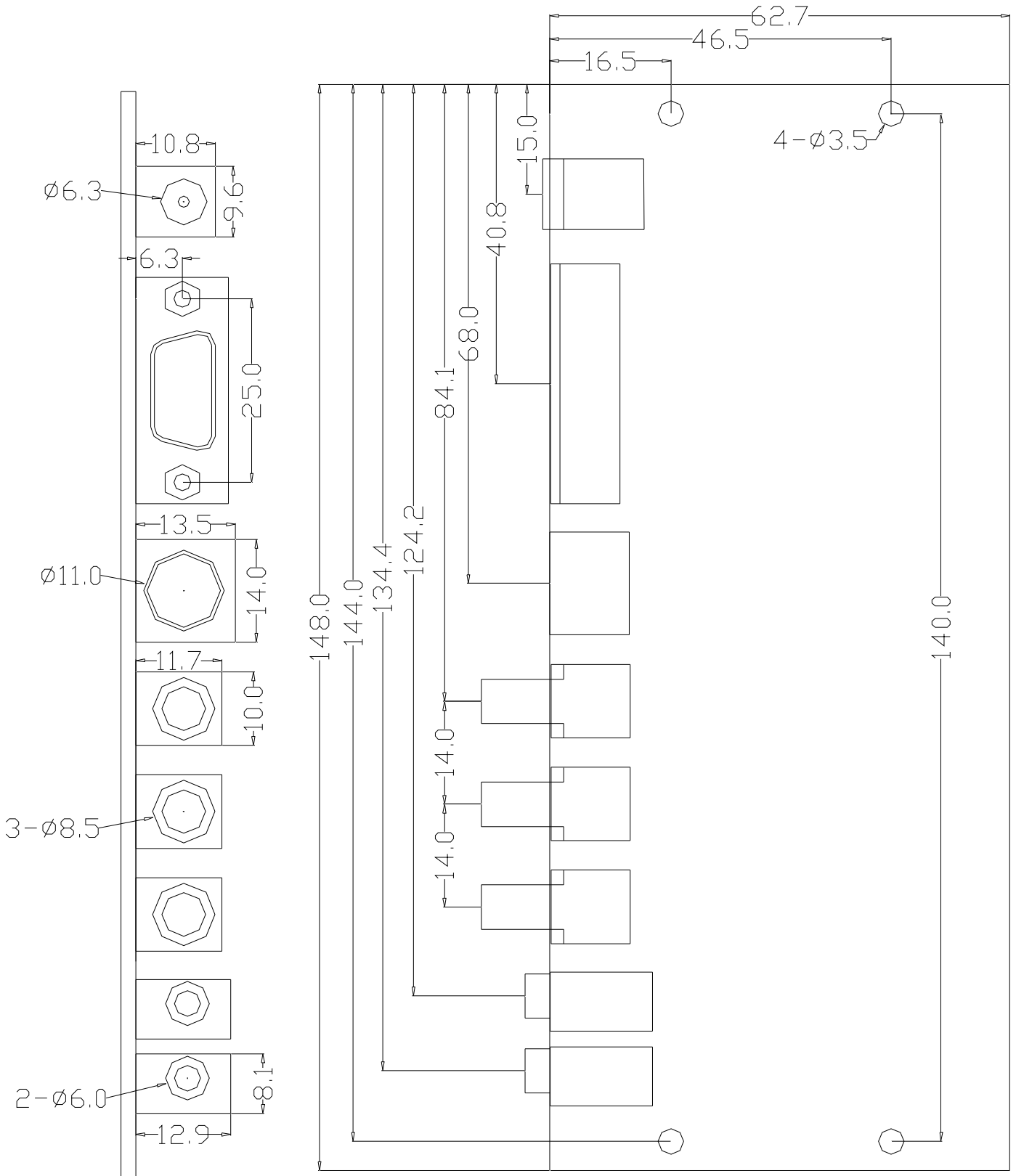
TWO-DOUBLE TV BOARD



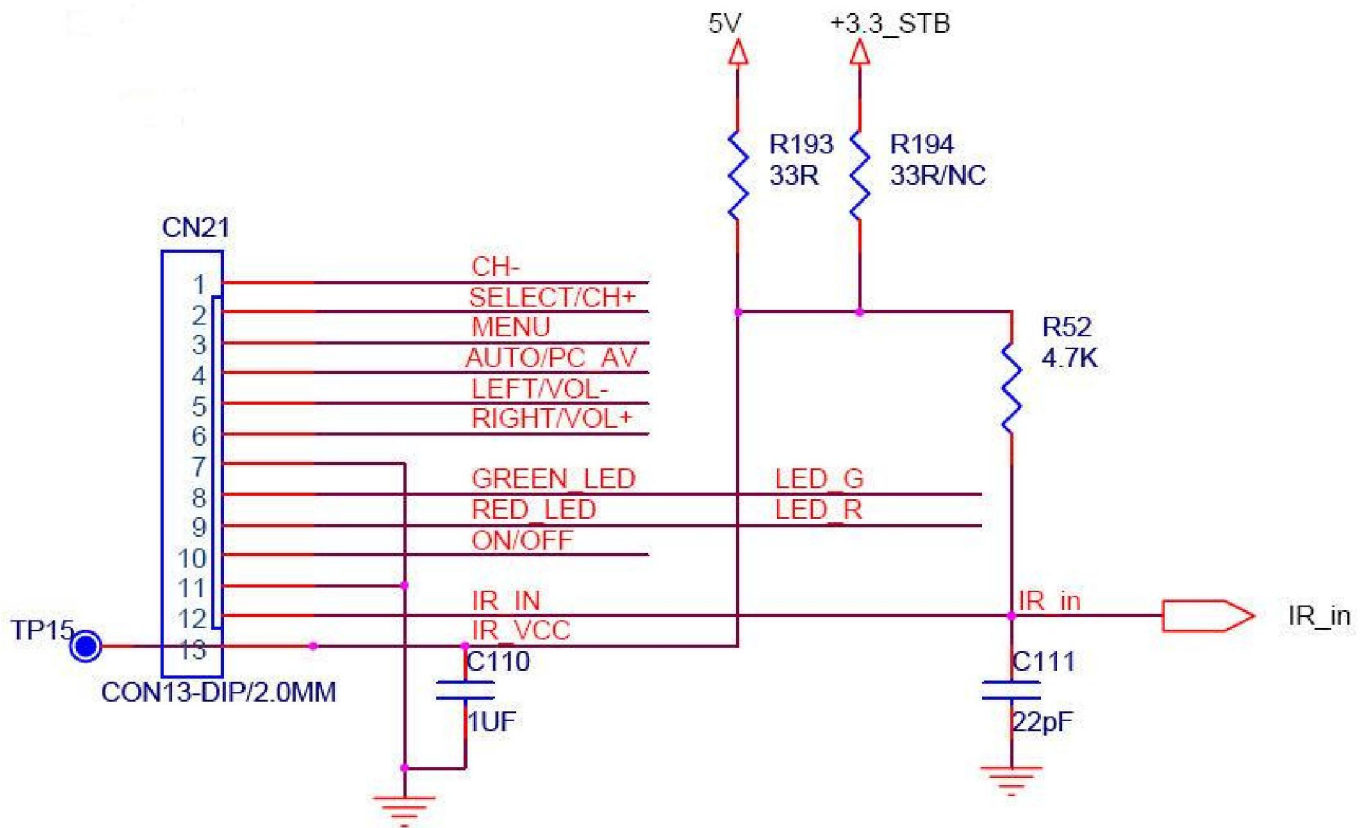
SINGLE-LAYER TV BOARD



AV BOARD



5. KEY BOARD & IR BOARD SYSTEM SCHEMATIC



6. OPERATION REQUIREMENT

- Do not pressed and distorted.
- Keep away from static and water.
- Relative humidity : $\leq 80\%$
- Storage temperature: $-10\sim+60^{\circ}\text{C}$
- Operation temperature: $0\sim+40^{\circ}\text{C}$