

General Description

The C115A670VD0 is a high performance and fully integrated LCD TV controller board for global multi-function LCD TV with resolutions up to 1080P.

It is configured with a D-sub, Component, Composite, an integrated HDCP/HDMI receiver. A separate tuner board should be attached for TV function.

Features

- Single display LCD TV controller board with multimedia display functions
- Input supports up to 1080P
- Supports PC signal up to WSUXGA+ (1920x1080)
- TV decoder with 3-D comb filter
- High-quality scaling engine & 3-D motion adaptive video de-interlacing
- Realtek picture/color processing engine
- 3-D video noise reduction
- Edge-oriented adaptive algorithm for smooth low-angle edges
- Automatic 3:2 pull-down & 2:2 pull-down detection and recovery
- Supports HDTV RGB / Y Pb Pr / Y Cb Cr up to 1080Pi
- High Definition Multimedia Interface (HDMI 1.2) compliant receiver. Support HDTV up to 1080P
- Audio processing for loudspeaker channel, including volume, balance, mute, tone, EQ, and virtual stereo / surround

Input Connector for NTSC and PAL_CN System

- Support 1 set D-Sub input connector up to 1680x1050 resolution (WSUXGA+)
- Support 1 set Y Pb Pr (Component) input connector up to 1080P HDTV
- Support 1 set CVBS (Composite) and 1 set S-Video input connector up to 480P
- Support 1 set HDMI 1.2 input connector up to 1080P HDTV
- Support 1 set PC audio input connector
- Support 1 set L/R RCA-Jack for CVBS / S-Video / Y Pb Pr audio input

Output Connector

- Support 1 set Ear Phone-Jack for audio output
- Support 1 set L/R 2W+2W load 8ohm THD + N 10% audio output

TV System

- Supports NTSC M, NTSC-J, NTSC-4.43, & PAL (B/D/G/H/M/N/I/Nc) , based on the tuner type attached .
- Macrovision detection
- FM stereo & SAP demodulation

Electrical Specification

A. Power Supply

- Input for A/D main board : 12V, 5V

B. Environment

- Operational Temperature : 0°C ~ 60°C
- Storage Temperature : -20°C ~ 70°C
- Operation Humidity : 0°C ~ 80°C
- Storage Humidity : 0°C ~ 90°C (non condensing)

C. Output Data type

- LVDS mode : 8bit Dual

D. Input refresh rates

- fh : 30 ~ 80KHz , fv : 56 ~ 75Hz

PC Timing support

Mode	Resolution	H Freq.(kHz)	V Freq.(Hz)
1	640*350@70	31.469	70.087
2	640*400@70	31.469	70.087
3	640*480@60	31.469	59.940
4	640*480@72	37.861	72.809
5	640*480@75	37.500	75.000
6	720*400@70	31.469	70.087
7	800*600@56	35.156	56.250
8	800*600@60	37.879	60.317
9	800*600@72	48.077	72.188
10	800*600@75	46.875	75.000
11	1024*768@60	48.363	60.004
12	1024*768@70	56.476	70.069
13	1024*768@72	58.038	71.918
14	1024*768@75	60.023	75.029
15	1024*768@60	48.019	60.000
16	1024*768@60	47.700	60.000
17	1280*1024@60	63.980	60.000
18	1280*1024@70	74.882	69.853
19	1280*1024@75	79.976	75.025
20	1680*1050@60	65.3	60
21	1920*1200@60	74.6	60

Connector List

Reference	Function	Note
J4	DC12V in Jack	ψ2.5
CON1	HDMI in Jack	HDMI
CON4	D-sub Connector	D-15F
PJ1	PC Audio Line-in Jack	3.5ψ
CON18	AV / YPbPr Jack	RCA 2x3
JX1A	S-Video Jack	Mini Din
PJ2	Ear Phone-Jack	3.5ψ
J1	Inverter connector	2.0mm 8 Pin
CON9	Key pad connector	2.0mm 10 Pin
CON12	IR connector	2.0mm 3 Pin
CON24	Speaker Connector	2.0mm 4 Pin
CON27	Extend Tuner connector	2.0mm 9 Pin
CON25	Debug connector	2.0mm 3 Pin
CON3	LVDS panel interface connector	2.0mm 16x2 Pin
JP1	Panel VCC select control	2.54mm 3 Pin

Connector, Pin Assignment & Jumpers

- Pin define for connectors

J1 : Inverter connector (8P 2mm)

Pin	Symbol	Description
1	12V Input	
2,4,6	GND	
3	Brightness control	0V Max Luminance; 5V Min Luminance
5	ON/OFF Control	5V ON;0V OFF
7,8	5V Input/Output	

Note : 2.0 mm 5 pin connector (Pin1~5) is used for standard 12V input and stand alone Inverter .

2.0 mm 3 pin connector (Pin6~8) is used for 2-in-1 power supply with 5V input .

CON12 : IR connector (3P 2mm)

Pin	Symbol	Description
1	5V	
2	IR-Data	
3	GND	

CON27 : Extend Tuner connector (9P 2mm)

Pin	Symbol	Description
1	5V	N.C.
2	SCL	
3	SDA	
4	AS	N.C.
5	SIF Out	N.C.
6	Video Out	
7	5V	N.C.
8	AF_Sound	
9	GND	

CON9 : KEY PAD connector (10P 2mm)

Pin	Symbol	Description
1	Vol +	
2	Vol -	
3	Source	
4	Menu	
5	Power	
6	LED-G	
7	LED-R	
8	GND	
9	SeL - & CH-	
10	SeL + & CH+	

JP1 : PANEL VCC SEL CONTROL (3P 2.54mm) JUMPER SEL

Pin	Symbol	Description
1	VCC5V	5V Panel VCC Select
2	PNL_PWR	Panel VCC
3	VCC12V	12V Panel VCC Select

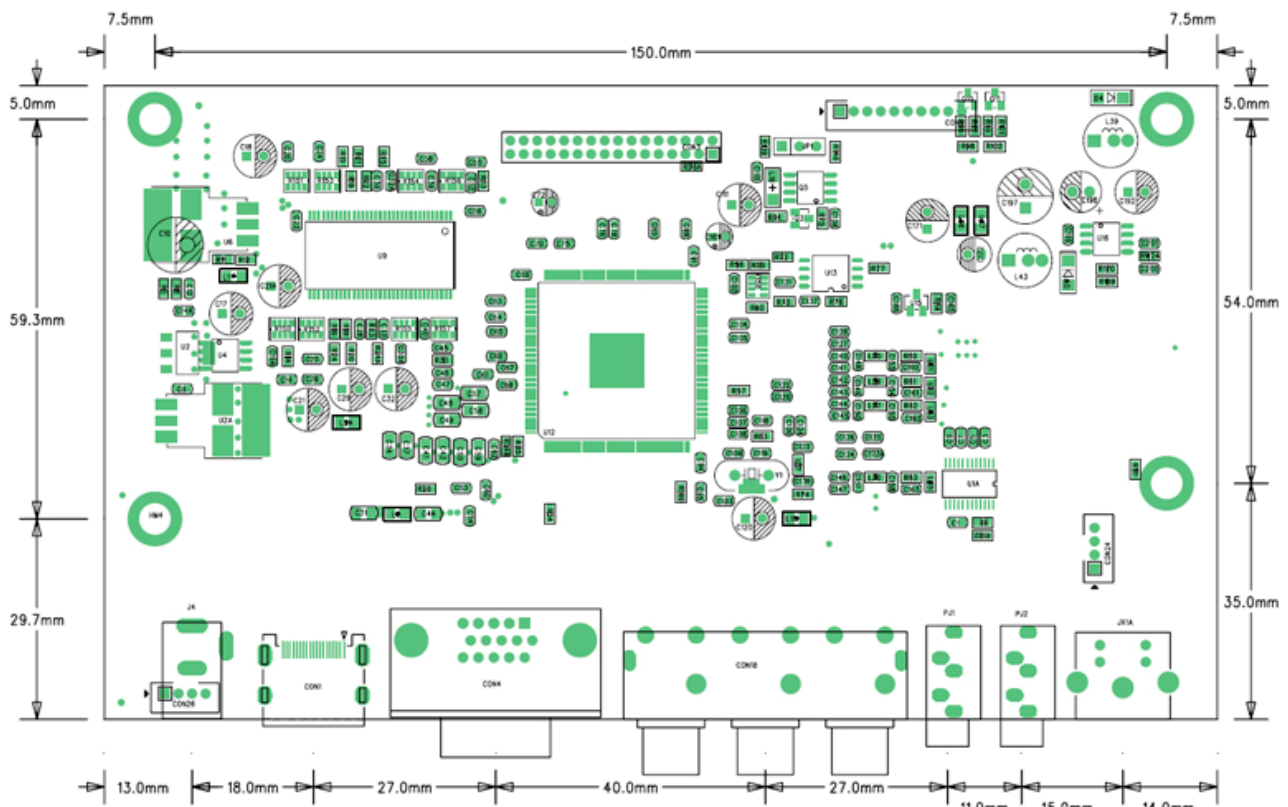
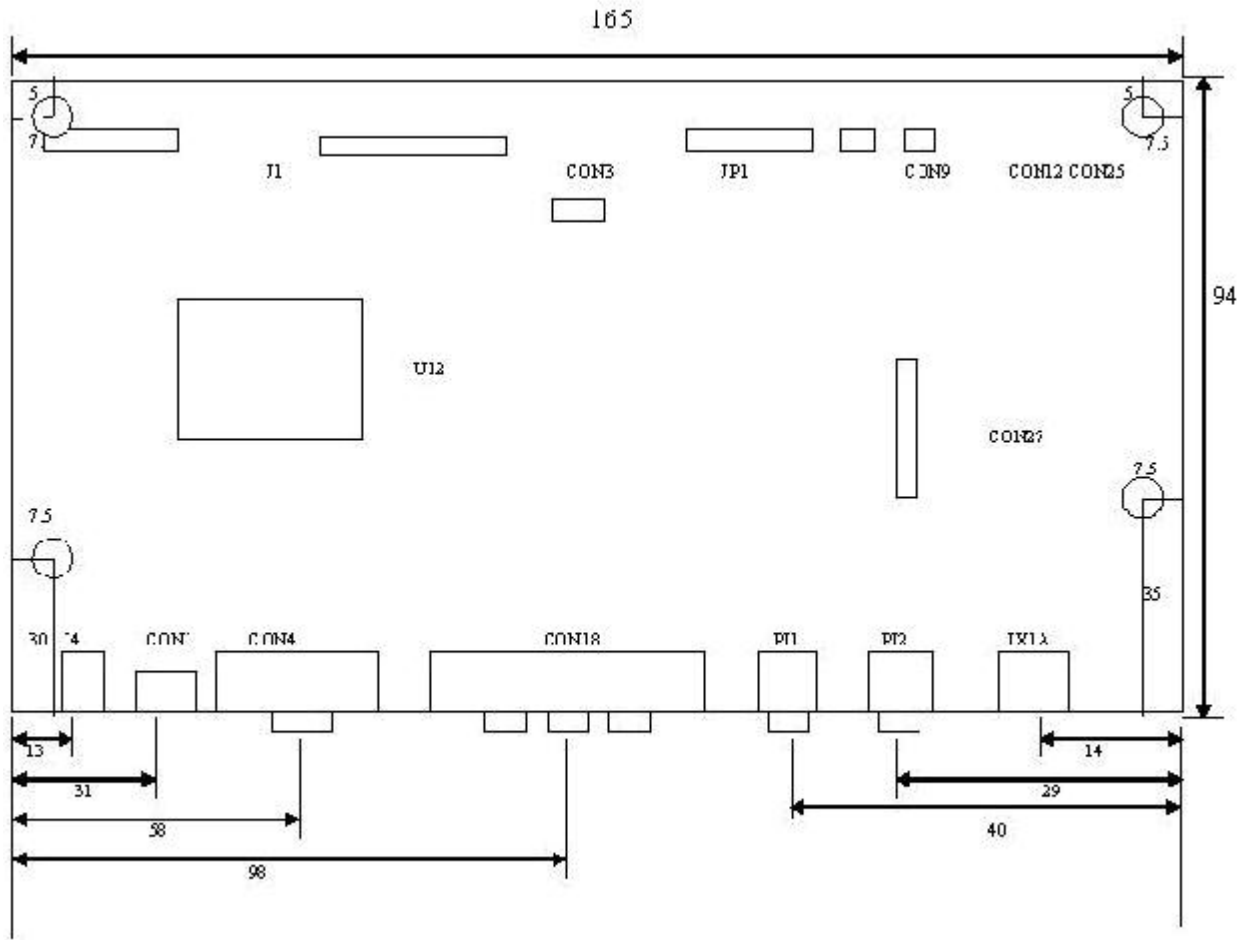
CON24 : SPEAKER OUT connector (4P 2mm)

Pin	Symbol	Description
1	SP_R+	Speaker out right +
2		
3		
4	SP_R-	Speaker out right -

CON3. Main board - LVDS Panel interface connector (16x2 2mm)

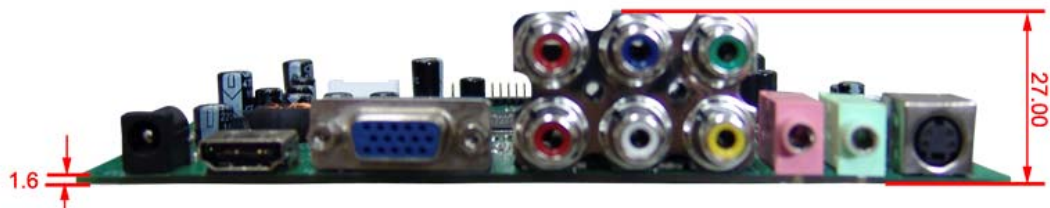
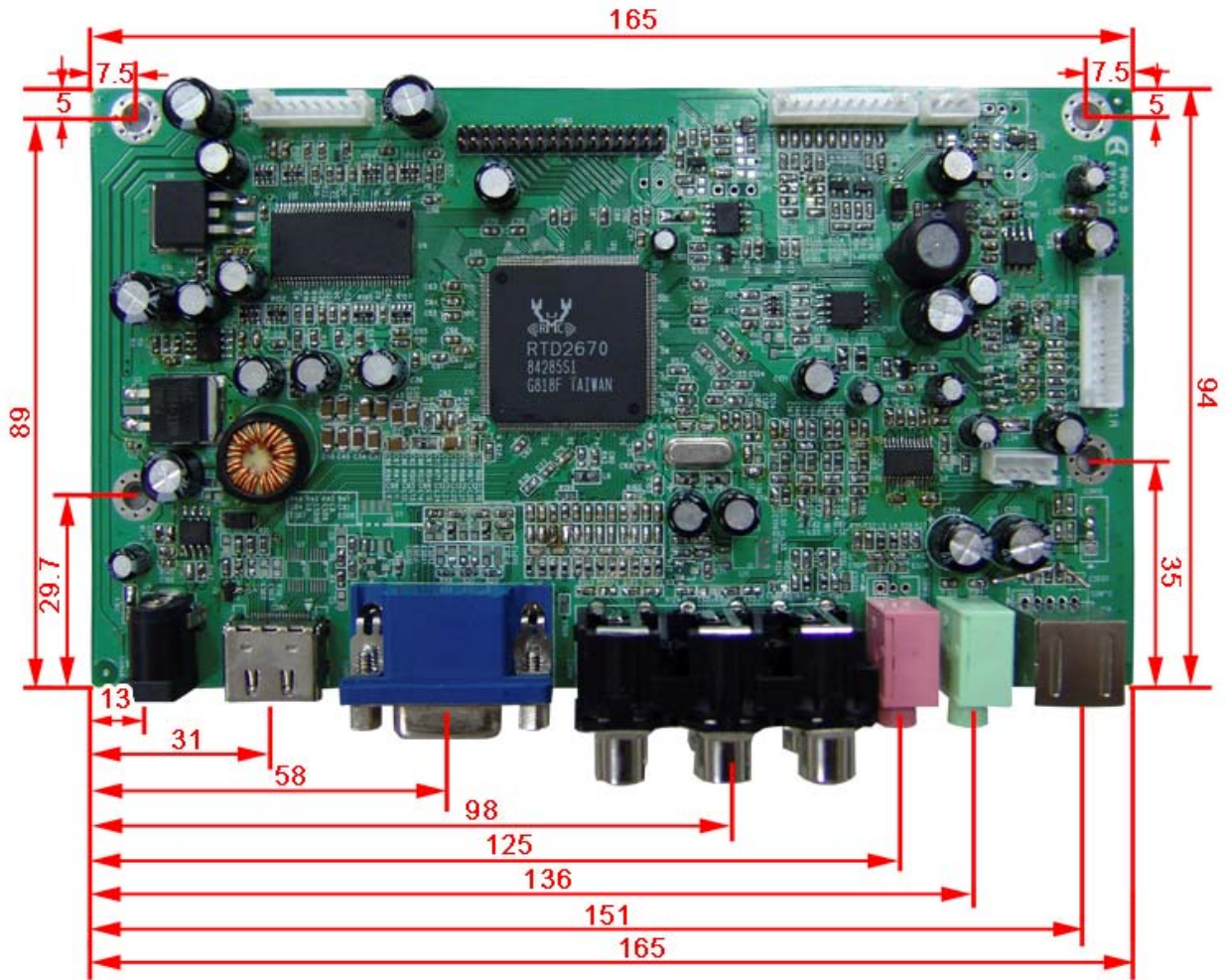
Pin	Symbol	Description
1	VDD	
2	VDD	
3	VDD	
4	VDD	
5	GND	
6	GND	
7	GND	
8	GND	
9	RXEIN3-	
10	RXEIN3+	
11	RXECLKIN-	
12	RXECLKIN+	
13	RXEIN2-	
14	RXEIN2+	
15	RXEIN1-	
16	RXEIN1+	
17	RXEIN0-	
18	RXEIN0+	
19	GND	
20	GND	
21	RXOIN3-	
22	RXOIN3+	
23	RXOCLKIN-	
24	RXOCLKIN+	
25	RXOIN2-	
26	RXOIN2+	
27	RXOIN1-	
28	RXOIN1+	
29	RXOIN0-	
30	RXOIN0+	
31	GND	
32	GND	

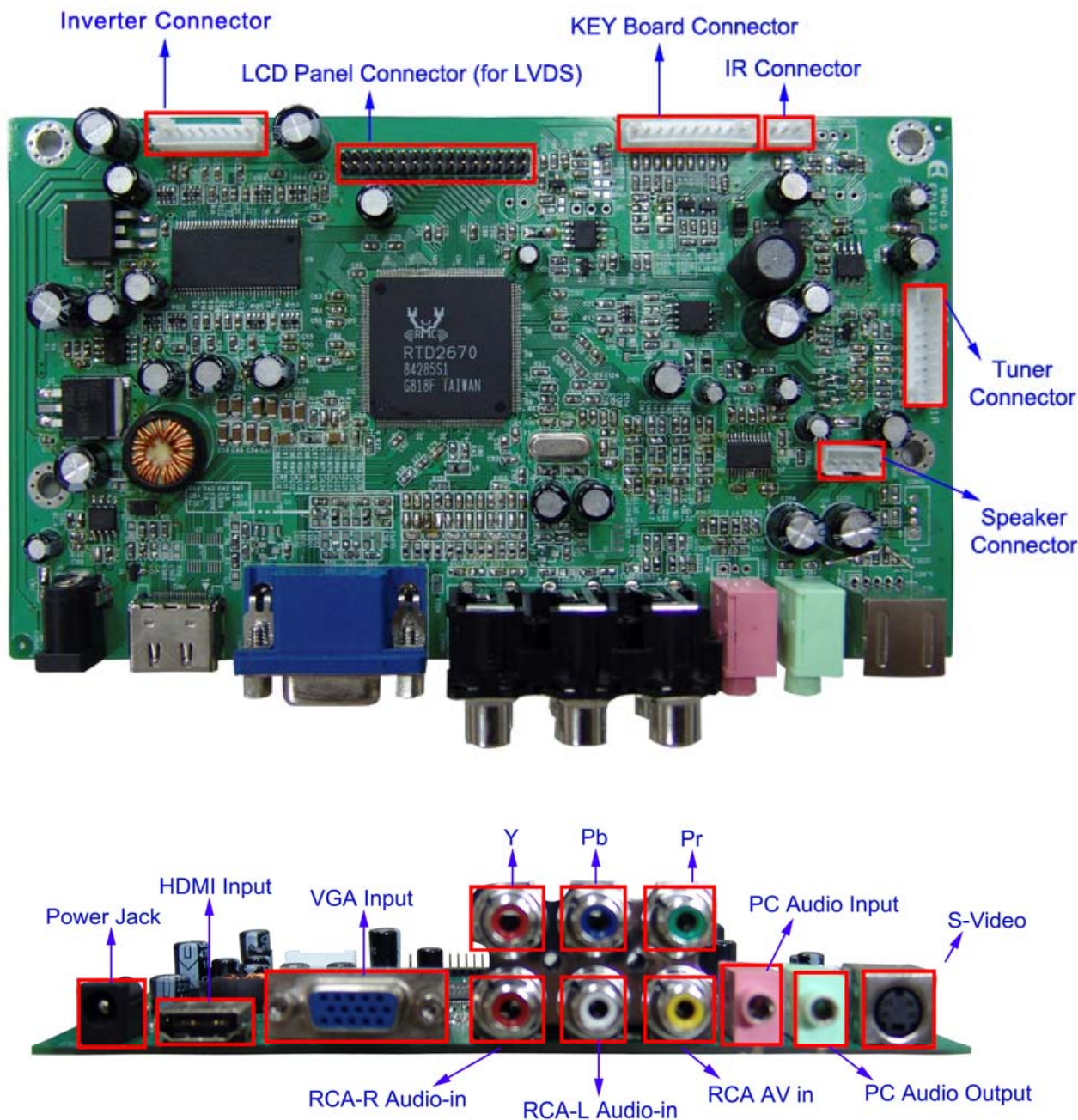
Board Dimension : 165mm * 94 mm



EW-VT115 Board specification

單位 : mm+-0.3 Board Dimension: 165mm * 94mm





Picture / Model	Function	Remark
EW-VT115	1.VGA Input	Suitable for LVDS
Resolution up to	2.PC Audio Input	
1920 * 1080	3.S Video Input	
	4.Component (Y Pb Pr) Input	
	5.RCA Video Input	
	6.RCA Audio Input	
	7.PC Audio Output	
	8.HDMI / HDCP 1.2	Interface panel use.
	9.RF Input	