

**MONITOR CONTROL BOARD  
SPECIFICATION**

**MODEL: RTMC1B-1**

**Part Number: RT-09041609**

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# REVISION HISTORY

VERSION	DATE	PAGE	DESCRIPTION	AUTHOR
V1.0	09.04.16	All	First issued	JinhuaHuang

## 1. GENERAL DESCRIPTION

**RTMC1B-1** is a LCD control board, it supports between 14 and 19 inch LCD panel with single /dual LVDS interface. And the resolution is up to 1440x900.

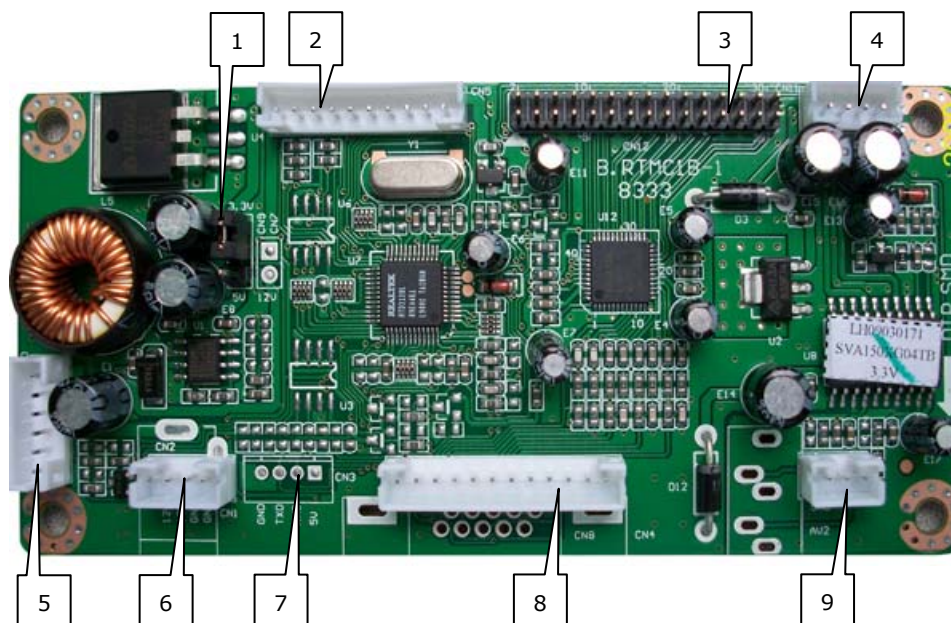
It includes an audio power amplifier which can support 2X1W (8Ω) output. It also supports PC audio input.

## 2. FEATURES

<b>CHIPSET</b>	RTD2025L+RTD2120L	
<b>OSD LANGUAGE</b>	Simplified Chinese, Traditional Chinese, English, French, German, Italian, Spanish, Japanese, Korean	
<b>PANEL</b>	Interface	Dual/Single LVDS interface
	Resolution	Up to 1440x900
<b>VIDEO INPUT (PC-RGB)</b>	Format	Up to 1440x900
	H-Frequency	30~80KHz
	V-Frequency	56~75Hz
<b>AUDIO INPUT</b>	PC-RGB 3PIN/2.0 Connector	
<b>AUDIO OUTPUT</b>	2X1W (8Ω)	
<b>POWER</b>	Requirement	12V
	To Panel	3.3V, 5V, 12V
	Management	Low power consumption mode; standby< 1W
<b>KEY FUNCTION</b>	Auto, Menu, Vol-, Vol+, Power	

## 3. FUNCTION LAYOUT

### TOP VIEW OF LCD CONTROL BOARD

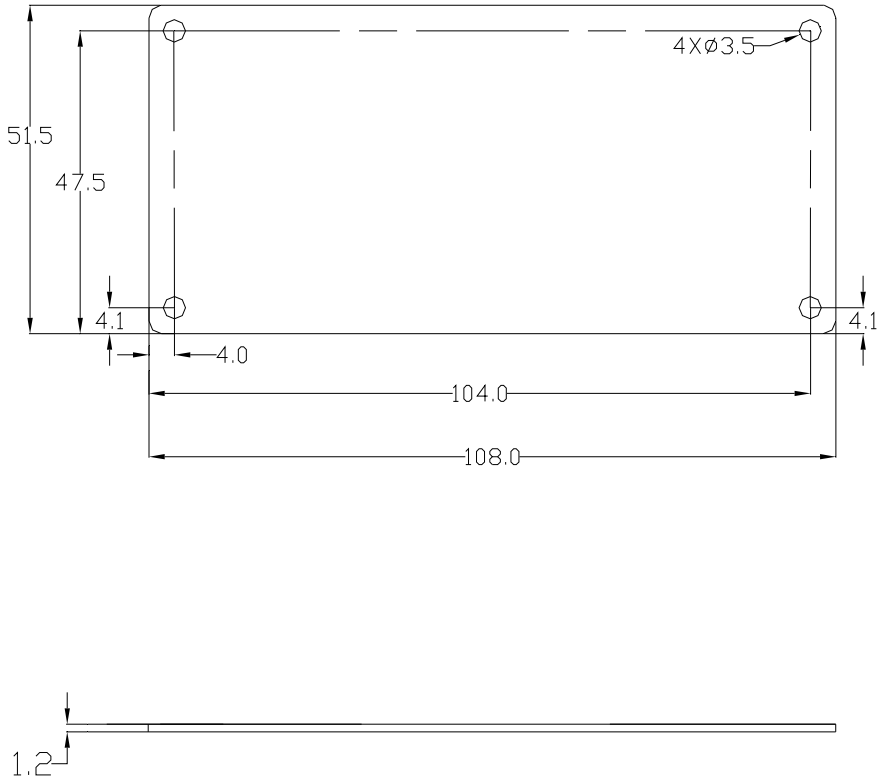


### INTERFACE FUNCTION DESCRIPTION

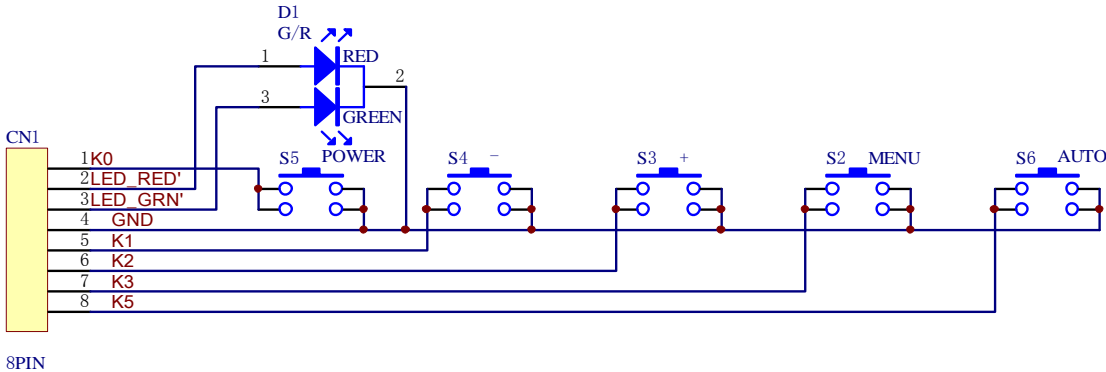
NO.	DESCRIPTION	NO.	DESCRIPTION
1(CN7/9)	Power Supply Jumper For Panel	6(CN2)	Power Supply Input Connector
2(CN5)	Key Board & LED Indicator Connector	7(CN3)	Updating Connector
3(CN12)	LVDS Panel Connector	8(CN8)	PC-RGB Input Connector
4(CN11)	Speaker Connector	9(CN6)	Audio Input Connector
5(CN10)	Inverter Connector		

### 4. PCB DIMENSION

The height of the control board is 16.0mm.



### 5. KEY BOARD SCHEMATICS



### 6. INTERFACE DEFINITION

◆ CN10(6PIN/2.0): INVERTER CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	+12V	+12V DC Power Supply
2	+12V	+12V DC Power Supply
3	BL_ON	Back-light ON/OFF control
4	ADJ	Brightness Adjustment
5	GND	Ground
6	GND	Ground

**◆ CN2(4PIN/2.0): POWER SUPPLY INPUT CONNECTOR**

NO.	SYMBOL	DESCRIPTION
1	12V	+12V DC Power Supply
2	12V	+12V DC Power Supply
3	GND	Ground
4	GND	Ground

**◆ CN5(10PIN/2.0): KEY BOARD & LED Indicator CONNECTOR**

NO.	SYMBOL	DESCRIPTION
1	K0	Key 0
2	R	Led-Red
3	G	Led-Green
4	GND	Ground
5	K1	Key 1
6	K2	Key 2
7	K3	Key 3
8	K4	Key 4
9	K5	Key 5
10	K6	Key 6

**◆ CN6(3PIN/2.0): AUDIO INPUT CONNECTOR**

NO.	SYMBOL	DESCRIPTION
1	LI	Audio Left Channel Input
2	GND	Ground
3	RI	Audio Right Channel Input

**◆ CN11(4PIN/2.0): SPEAKER CONNECTOR**

NO.	SYMBOL	DESCRIPTION
1	LO	Audio Left Channel Output
2	GND	Ground
3	GND	Ground
4	RO	Audio Right Channel Output

**◆ CN8(12PIN/2.0): PC-RGB Input Connector**

NO.	SYMBOL	DESCRIPTION
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1	GND	Ground
2	VS	Display Vertical Signal For Panel
3	HS	Display horizontal Signal For Panel
4	GND	Ground
5	R	Red Signal Input
6	GND	Ground
7	G	Green Signal Input
8	GND	Ground
9	B	Blue Signal Input
10	GND	Ground
11	SDA	I2C Data
12	SCL	I2C Clock

**◆ CN12(2x15PIN/2.0): LVDS PANEL CONNECTOR**

NO.	SYMBOL	DESCRIPTION
1	VSEL	Power Supply for Panel
2	VSEL	
3	VSEL	
4	GND	Ground
5	GND	
6	GND	
7	RX00-	LVDS ODD 0- Signal
8	RX00+	LVDS ODD 0+ Signal
9	RX01-	LVDS ODD 1- Signal
10	RX01+	LVDS ODD 1+ Signal
11	RX02-	LVDS ODD 2- Signal
12	RX02+	LVDS ODD 2+ Signal
13	GND	Ground
14	GND	
15	RXOC-	LVDS ODD Clock- Signal
16	RXOC+	LVDS ODD Clock+ Signal
17	RX03-	LVDS ODD 3- Signal
18	RX03+	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	
27	RXEC-	LVDS EVEN Clock- Signal
28	RXEC+	LVDS EVEN Clock+ Signal

NO.	SYMBOL	DESCRIPTION
29	RXE3-	LVDS EVEN 3- Signal
30	RXE3+	LVDS EVEN 3+ Signal

## 7. CONFIGURATION & GENERAL PRECAUTIONS

- **Relative humidity:  $\leq 80\%$ .**
- **Storage temperature:  $-10\sim+60$  °C.**
- **Operation temperature:  $0\sim+40$  °C.**
- **Protect the control board from static; it may cause damage to the IC.**
- **Disconnect the TV before the power supply of panel is connected correctly.**
- **Do not drop any metal on the control board when it is working.**
- **Do not push or pull the connector when the control board is working.**
- **Do not disassemble the module.**
- **If the surface or the control board is dirty, clean it with soft dry cloth.**
- **Can't be pressed and distorted.**