

MONITOR CONTROL BOARD SPECIFICATION MODEL: M.RT2261.5B

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REVISION HISTORY

VERSION	DATE	BOARD ID	PAGE	DESCRIPTION	AUTHOR
A0	2011.11.25	M.RT2261.5A 11445	All	First issued.	Linda
A1	2013.01.14	M.RT2261.5B 12523	2	Modify the board pictures in part 2;	Miki

. GENERAL DESCRIPTION

M.RT2261.5B is a monitor control board. It can support LED/LCD panels which resolution is up to 1920X1080.

M.RT2261.5B can synchronize with computer automatically. Synchronization requires the synchronous signal which horizontal and vertical sync are separated.

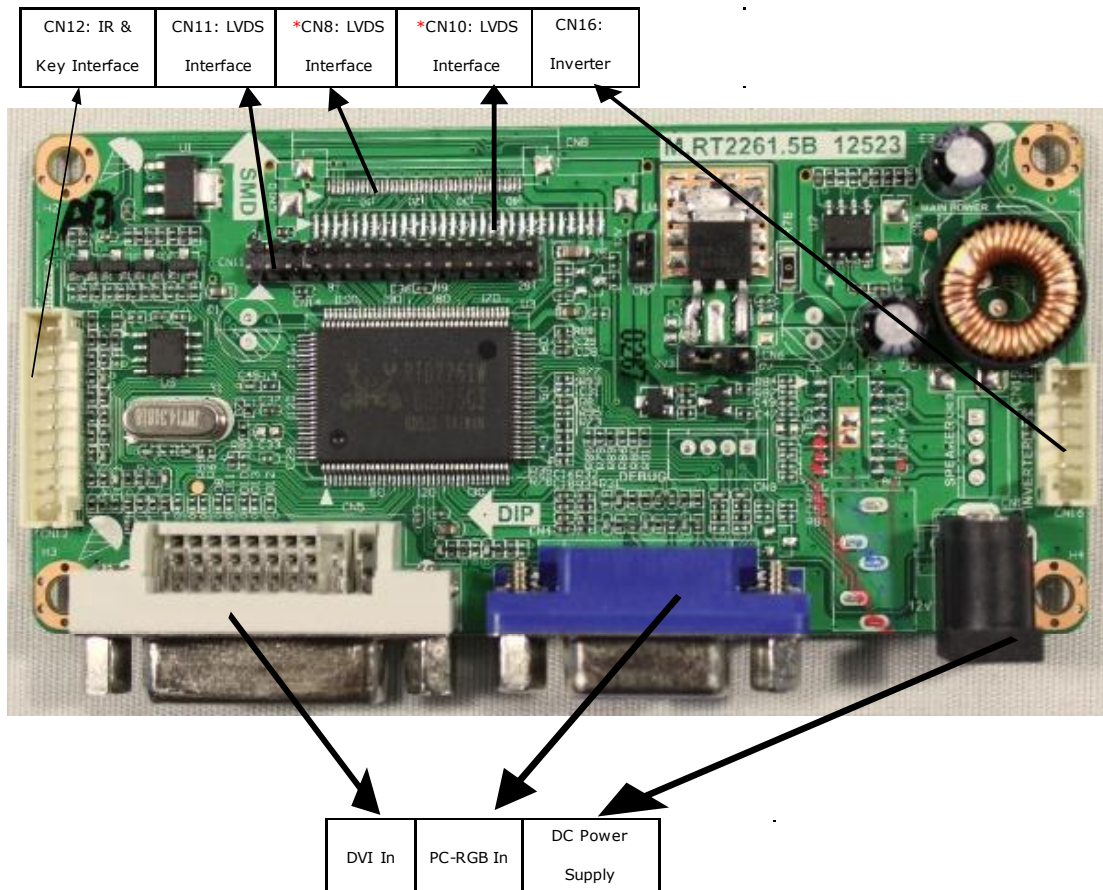
M.RT2261.5B can support dynamic contrast control, headphone input and Digital volume control simultaneously.

. FUNCTION LAYOUT

The picture is for a reference only, the actual item is the standard.

The optional connectors and terminals are marked with "*".

TOP VIEW OF M.RT2261.5B



. FEATURES

CHIPSET	RTD2261W-CG/RTD2281W-CG		
Audio	Optional		
OSD LANGUAGE	Simplified Chinese, Traditional Chinese, English, French, German, Italian, Spanish, Portuguese, Japanese, Korean (optional)		
PANEL	Panel Type	LED/LCD	
	Interface	Single/Dual LVDS (8bit)	
	Max Resolution	1680x1050(RTD2261CG)/1920x1080(RTD2281CG)	
VIDEO INPUT	PC-RGB	Format	Up to 1920x1080@60Hz
	DVI	480i, 480p, 576i, 576p, 720p, 1080i, 1080p	
AUDIO INPUT	PC Audio	Earphone Input	0.2 ~ 2.0 V _{RMS}
AUDIO OUTPUT	Frequency Response	100Hz~15KHz @±3dB (1KHz, 0dB reference signal)	
	Max Output Power	2×1W(8Ω) THD+N<10%@1KHz (Power Supply: 5V, Audio Input: 0.5V _{RMS})	
	Requirement	12V DC/12V(built in)/12V,5V(built in)/12V,5V,5VSB(built in)	
POWER	To Panel	3.3V, 5V, 12V	
	Management	Standby Power Consumption < 0.2W(Board Only)	
KEY FUNCTION	POWER,MENU,VOL+,VOL-,ADJUST/EXIT		
EXPANDABLE FUNCTION	--		
Note: Licenses involved in specifications above are supposed to be obtained by customers themselves.			

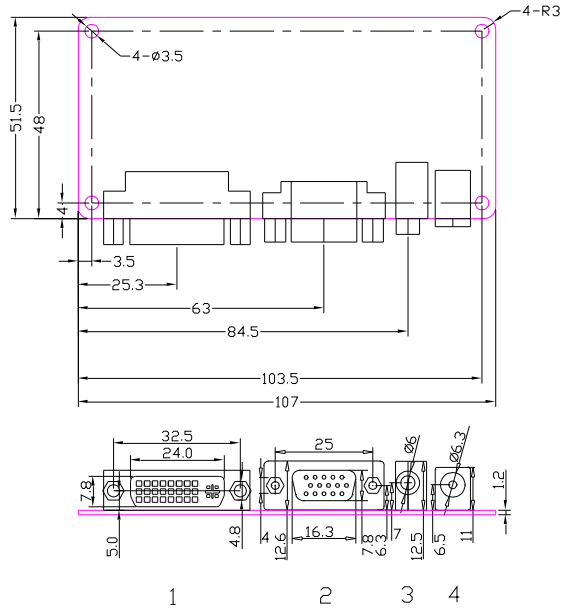
ELECTRICAL CHARACTERISTICS & REQUIREMENTS

Power Supply Mode	Symbol	Voltage Range	Max Current	Ripple Voltage@25℃	Startup Time	Rise Time
12V(Ext. Adaptor)	12V	12V±0.6V	2000mA	120mV _{p-p}	--	≤50ms
12V(Built-In)	12V	12V±0.6V	2000mA	120mV _{p-p}	--	≤50ms
12V/5V(Built-In)	12V	12V±0.6V	1300mA	120mV _{p-p}	≤100ms	≤50ms
	5V	5.1V±0.05V	1500mA	50mV _{p-p}	--	≤50ms
12V/5V/5VSB (Built-In)	12V	12V±0.6V	1300mA	120mV _{p-p}	≤100ms	≤50ms
	5V	5.1V±0.05V	1400mA	50mV _{p-p}	≤100ms	≤50ms
	5VSB	5.1V±0.05V	500mA	50mV _{p-p}	--	≤50ms
Note: The current of panel, USB,inverter and extension modules are not included in max current.						

. PCB DIMENSIONS

The size of M.RT2261.5A is 107mm(L)*51.5mm(W)*18mm(H).

Ver	V1.0
NO.	Description
1	DVI IN
2	VGA IN
3	PC AUDIO IN
4	DC IN



. INTERFACE DEFINITION

The optional connectors are marked with "*".

◆ CN12(8PIN/2.0): IR & KEY BOARD CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	K0	Key0
2	RED	Red Indicator
3	GRN	Green Indicator
4	GND	Ground
5	K1	Key1
6	K2	Key2
7	K3	Key3
8	K4	Key4
9	K5	Key5
10	K6	Key6

◆ **CN11(2×15PIN/2.0): LVDS INTERFACE CONNECTOR**

NO.	SYMBOL	DESCRIPTION
1	VSEL	Power Supply for Panel
2	VSEL	
3	VSEL	
4	GND	Ground
5	GND	
6	GND	
7	TX00-	LVDS ODD 0- Signal
8	TX00+	LVDS ODD 0+ Signal
9	TX01-	LVDS ODD 1- Signal
10	TX01+	LVDS ODD 1+ Signal
11	TX02-	LVDS ODD 2- Signal
12	TX02+	LVDS ODD 2+ Signal
13	GND	Ground
14	GND	
15	TXOC-	LVDS ODD Clock- Signal
16	TXOC+	LVDS ODD Clock+ Signal
17	TX03-	LVDS ODD 3- Signal
18	TX03+	LVDS ODD 3+ Signal
19	TXE0-	LVDS EVEN 0- Signal
20	TXE0+	LVDS EVEN 0+ Signal
21	TXE1-	LVDS EVEN 1- Signal
22	TXE1+	LVDS EVEN 1+ Signal
23	TXE2-	LVDS EVEN 2- Signal
24	TXE2+	LVDS EVEN 2+ Signal
25	GND	Ground
26	GND	
27	TXEC-	LVDS EVEN Clock- Signal
28	TXEC+	LVDS EVEN Clock+ Signal
29	TXE3-	LVDS EVEN 3- Signal
30	TXE3+	LVDS EVEN 3+ Signal

◆ ***CN8(40PIN/0.5FFC): LVDS PANEL CONNECTOR**

NO.	SYMBOL	DESCRIPTION
1	NC	No connection
2	VSEL	Power Supply for Panel
3	VSEL	
4	VSEL	
5	NC	No connection
6	NC	

M.RT2261.5B-SPECIFICATION

NO.	SYMBOL	DESCRIPTION
7	NC	
8	TX00-	LVDS ODD 0- Signal
9	TX00+	LVDS ODD 0+ Signal
10	GND	Ground
11	TX01-	LVDS ODD 1- Signal
12	TX01+	LVDS ODD 1+ Signal
13	GND	Ground
14	TX02-	LVDS ODD 2- Signal
15	TX02+	LVDS ODD 2+ Signal
16	GND	Ground
17	TXOC-	LVDS ODD Clock- Signal
18	TXOC+	LVDS ODD Clock+ Signal
19	GND	Ground
20	TXE0-	LVDS EVEN 0- Signal
21	TXE0+	LVDS EVEN 0+ Signal
22	GND	Ground
23	TXE1-	LVDS EVEN 1- Signal
24	TXE1+	LVDS EVEN 1+ Signal
25	GND	Ground
26	TXE2-	LVDS EVEN 2- Signal
27	TXE2+	LVDS EVEN 2+ Signal
28	GND	Ground
29	TXEC-	LVDS EVEN Clock- Signal
30	TXEC+	LVDS EVEN Clock+ Signal
31	GND	Ground
32	GND	
33	GND	
34	NC	No connection
35	ADJ	Brightness Adjustment for Panel
36	BL ON	Back-Light ON/OFF Control for Panel
37	NC	No connection
38	+12V	+12V DC Power Supply
39	+12V	
40	+12V	

◆ *CN10 (30PIN/1.0FFC): LVDS PANEL CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	TX00-	LVDS ODD 0- Signal
2	TX00+	LVDS ODD 0+ Signal
3	TX01-	LVDS ODD 1- Signal
4	TX01+	LVDS ODD 1+ Signal

NO.	SYMBOL	DESCRIPTION
5	TXO2-	LVDS ODD 2- Signal
6	TXO2+	LVDS ODD 2+ Signal
7	GND	Ground
8	TXOC-	LVDS ODD Clock- Signal
9	TXOC+	LVDS ODD Clock+ Signal
10	TXO3-	LVDS ODD 3- Signal
11	TXO3+	LVDS ODD 3+ Signal
12	TXE0-	LVDS EVEN 0- Signal
13	TXE0+	LVDS EVEN 0+ Signal
14	GND	Ground
15	TXE1-	LVDS EVEN 1- Signal
16	TXE1+	LVDS EVEN 1+ Signal
17	GND	Ground
18	TXE2-	LVDS EVEN 2- Signal
19	TXE2+	LVDS EVEN 2+ Signal
20	TXEC-	LVDS EVEN Clock- Signal
21	TXEC+	LVDS EVEN Clock+ Signal
22	TXE3-	LVDS EVEN 3- Signal
23	TXE3+	LVDS EVEN 3+ Signal
24	GND	Ground
25	NC	No connection
26	NC	No connection
27	NC	No connection
28	VSEL	Power Supply for Panel
29	VSEL	Power Supply for Panel
30	VSEL	Power Supply for Panel

◆ ***CN2(4PIN/2.0): 12V POWER SUPPLY CONECTOR**

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

◆ **CN13 (4PIN/2.0): SPEAKER CONNECTOR**

NO.	SYMBOL	DESCRIPTION
1	LO+	Audio Left Channel Output+
2	LO-	Audio Left Channel Output-
3	RO-	Audio Right Channel Output-
4	RO+	Audio Right Channel Output+

◆ CN16(6PIN/2.0): INVERTER CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	12V	+12V DC Power Supply
2	12V	
3	BLO	Back-Light ON/OFF Control for Panel
4	ADJ	Brightness Adjustment for Panel
5	GND	Ground
6	GND	

◆ CN3(6PIN/2.0): MAIN POWER SUPPLY CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	PWON	Power On/Off
2	5VSB	+5V DC Power Supply for Standby Mode
3	5V	+5V DC Power Supply
4	5V	
5	GND	Ground
6	GND	

6. CONFIGURATION & GENERAL PRECAUTIONS

- **Relative humidity: ≤ 80%.**
- **Storage temperature: -10~60°C.**
- **Operation temperature: 0~40°C.**
- **Protect the board from static electricity in case of damage to the IC.**
- **Keep the board away from conductor when it is working.**
- **Don't push or pull the connectors when the board is working.**
- **Don't press, distort or disassemble the board.**
- **Clean the board with soft dry cloth when it's dirty.**
- **Don't wire in the board to power supply before panel is correctly connected.**