

SPECIFICATION

产品规格书

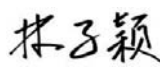

产品型号: **M.RT2281.E5**

销售区域: 国内

产品形态: TV

产品类型: Monitor

文档编码: 15091020

Approved by Shiyuan		
Checked by 审核	Rechecked by 复审	Approved by 批准
 2015.09.10 20:30:37 +08'00'	 2015.09.10 20:34:10 +08'00'	

Please send the original back to us after you have approved and signed.

客户承认签章后敬请寄回正本一份。

Approved by customer		
Comments 确认意见	Approved by 批准签字	Company's seal 盖章
Customer's Name:		

REVISION HISTORY

VERSION	DATE	BOARD ID	PAGE	DESCRIPTION	AUTHOR
V0	2015.09.10	M.RT2281.E5 B15342	All	First Issued.	Cathy

Content

1. STANDARD CONFIGURATION (标准配置)	1
2. BOARD PICTURE (板卡外观图)	2
3. FEATURES (特性说明)	2
3.1 CRITICAL MATERIALS of TV Part (TV 部分关键物料清单)	3
3.2 ELECTRICAL CHARACTERISTICS & REQUIREMENTS.....	3
(电气特性和要求)	3
5. INTERFACE DEFINITION (接口定义)	4
6. CONFIGURATION & GENERAL PRECAUTIONS (使用注意事项)	6
7. MECHANICAL DIMENSION (结构尺寸图)	7

1. STANDARD CONFIGURATION (标准配置)

下表为我们主推的标准配置:

标准配置一	卧式端子, 带音频
FUNCTIONS	【E5_1】 DVI (卧式),VGA(卧式),PC AUDIO IN (卧式)
FRONT VIEW	
SIDE VIEW	--

标准配置三	卧式端子, 无音频
FUNCTIONS	【E5_3】 DVI (卧式),VGA(卧式),无音频功能
FRONT VIEW	
SIDE VIEW	--

OPTIONAL FUNCTION	--
--------------------------	----

备注: 如以上表格不包含您需要的配置, 请单独向我司销售人员进行申请。

Note: If the configurations above can't meet your demand, please apply to our sales stuff.

2. BOARD PICTURE (板卡外观图)

Pictures are for reference only, specific to prevail in kind.

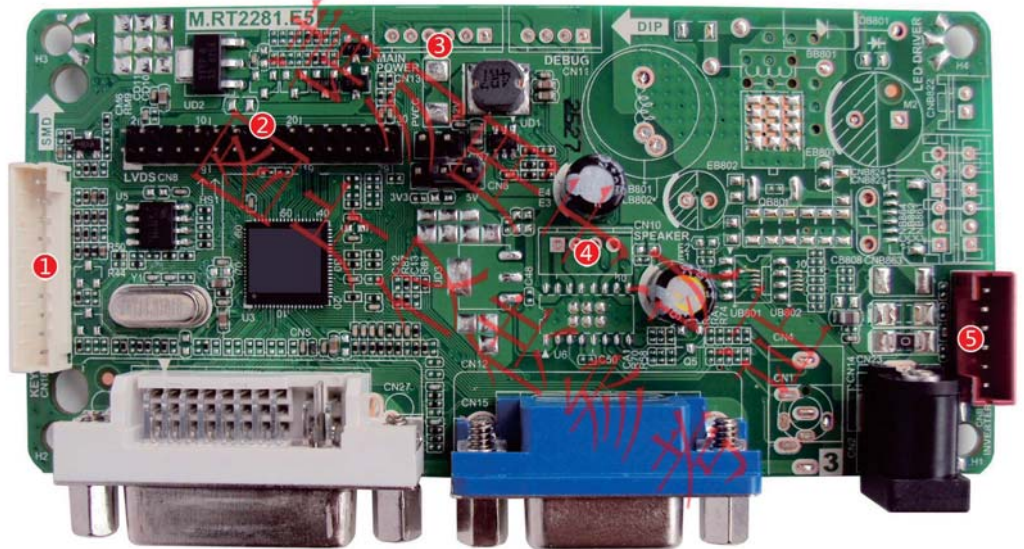
The optional connectors and functions are marked with "*".

以下图片仅供参考，请以【结构图】或【实物】为准。

可选的接口或者功能都以"*"标示。

尺寸: 103.5mm(L)*51.5mm(W)*1.2mm(H) (H 为 PCB 厚度)

No.	Position	Description
1	CN16	KEY
2	CN8	LVDS
3	*CN13	MAIN POWER
4	*CN10	SPEAKER
5	CNB1	INVERTER



3. FEATURES (特性说明)

MAIN CHIPSET 主芯片	RTD2281CL		
OSD LANGUAGE OSD 语言	Asia-Pacific	Simplified Chinese, Traditional Chinese, English, French, German, Italian, Spanish, Portuguese, Japanese, Korean (optional)	
PANEL 面板	Panel Type	TFT LCD	
	Interface	Single/Dual LVDS	
	Max Resolution	1920*1080	
VIDEO INPUT 视频输入	PC-RGB	Format	Up to 1920×1080@60Hz
	DVI	480i, 480p, 576i, 576p, 720p, 1080i, 1080p	
AUDIO INPUT 音频输入	PC Audio	Earphone Input	0.2 ~ 2.0 V _{RMS}
AUDIO OUTPUT 音频输出	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})	
POWER TO PANEL	3.3V, 5V, 12V		

驱屏电压	
Management 电源管理	Standby Power Consumption < 0.2W(Board Only) 待机功耗< 0.2W (仅主板)
USB FUNCTION USB 功能	软件升级, 多媒体播放 software upgrade, multimedia play
按键类型 Button Types	对地按键接口 Ground Key Interface
客户特殊需求 Special Requirements	--
<p>Note: 1. Licenses involved in specifications above are supposed to be obtained by customers themselves. 2. When 3.3V panel Irush\geq1000mA, Inormal\geq600mA, please contact our engineers to confirm 3.3V panel power supply component selection. 3. Max current of USB2.0: 500mA. Large impact current of USB device(exceeds 500mA) may lead to board abnormal work; 4. The normal operating current of 5V panel \leq 1500mA.</p> <p>注意: 1. 以上规格涉及 License 部分需要客户自己获取; 2. 当 3.3V 屏冲击电流大于 1A, 正常电流大于 600mA, 请联系我们工程师确认 3.3V 屏供电器件选型; 3. USB2.0 最大电流: 500mA, 如果 USB 设备冲击电流过大 (超过 500mA) 将可能导致板卡工作异常; 4. 5V 屏正常工作电流小于 1500mA。</p>	

3.1 CRITICAL MATERIALS of TV Part (TV 部分关键物料清单)

The table is for reference only, specific to prevail in kind. 此表仅供参考, 请以实物为准。

NAME 物料名称		TYPE 型号	BRAND 品牌
FLASH	4M bit	KH25L4006EM1I-12G	旺宏
晶振	MAIN CHIP	14.318MHz- \pm 30PPM-20PF-HC-49S	JWT

3.2 ELECTRICAL CHARACTERISTICS & REQUIREMENTS

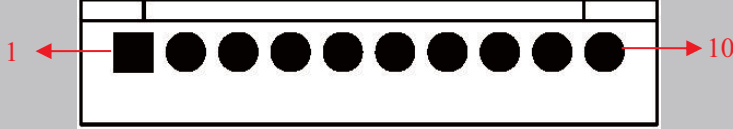
(电气特性和要求)

Symbol	Voltage Range			Ripple	Total current	MAX. current(mA) of Individual part					
	MIN	TYP	MAX	Voltage		Mainboard	AMP	USB	MHL	Panel	DVD
24V	22	24	26	500mV _{P-P}	1000	-	-	-	-	-	-
12V	11	12	13	300 mV _{P-P}	Ct1 ^②	-	-	-	-	-	-
5V	4.9	5	5.3 ^①	120 mV _{P-P}	Ct2 ^②	0.5A	1A	-	-	1A	-
5VSB	4.9	5	5.3 ^①	120mV _{P-P}	Ct3 ^②	-	-	-	-	-	-
<p>Note^①: Don't exceed 5.25V when make the certification practice test.</p> <p>Note^②: CtN = The sum of MAX. current(mA) of individual part.</p>											

4. INTERFACE DEFINITION (接口定义)

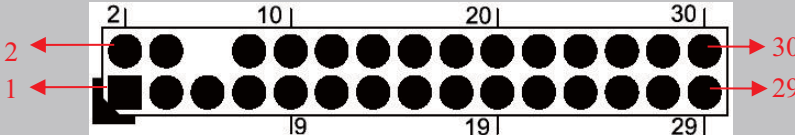
The optional connectors and terminals are marked with "*".标“*”的为可选。

◆ CN16(10PIN/2.0): KEY CONNECTOR (按键接口)



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

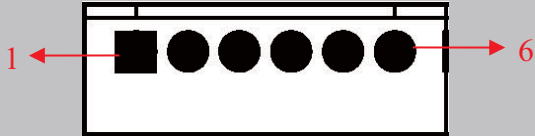
◆ CN8(2×15PIN/2.0): LVDS CONNECTOR (LVDS 接口)



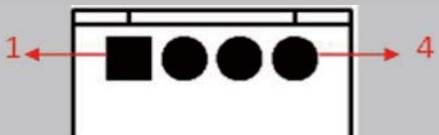
NO.	SYMBOL	DESCRIPTION
1	VSEL	Power Supply for Panel
2	VSEL	
3	VSEL	
4	GND	Ground
5	GND	
6	GND	
7	TX00-	LVDS ODD 0- Signal
8	TX00+	LVDS ODD 0+ Signal
9	TX01-	LVDS ODD 1- Signal
10	TX01+	LVDS ODD 1+ Signal
11	TX02-	LVDS ODD 2- Signal
12	TX02+	LVDS ODD 2+ Signal
13	GND	Ground
14	GND	
15	TXOC-	LVDS ODD Clock- Signal
16	TXOC+	LVDS ODD Clock+ Signal

17	TXO3-	LVDS ODD 3- Signal
18	TXO3+	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

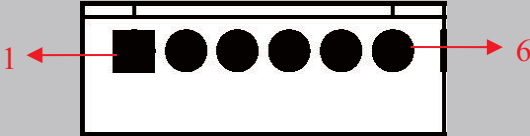
◆ ***CN13(6PIN/2.0): MAIN POWER SUPPLY CONNECTOR** (主供电接口)

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

◆ ***CN10(4PIN/2.0): SPEAKER CONNECTOR** (喇叭输出接口)

		
NO.	SYMBOL	DESCRIPTION
1	RSPK	Audio Right Channel Output+
2	ROut-	Audio Right Channel Output-
3	LOut-	Audio Left Channel Output-
4	LSPK	Audio Left Channel Output+

◆ CN10(6PIN/2.0): INVERTER CONNECTOR (INVERTER 接口)



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

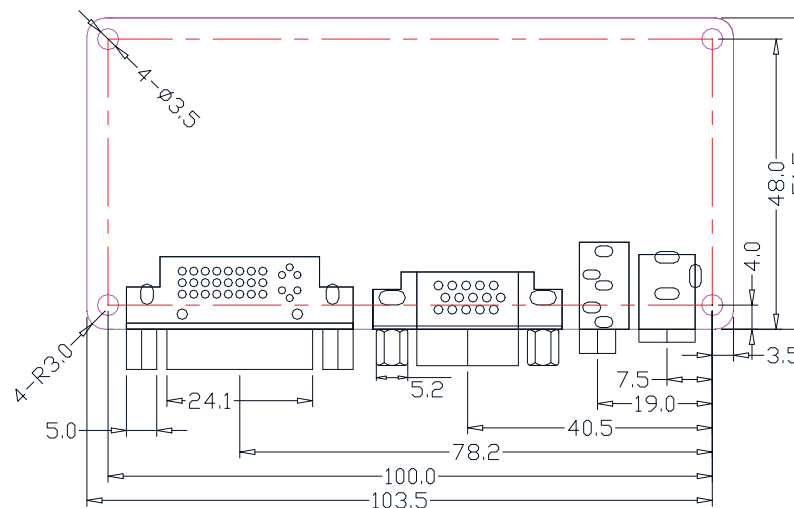
5. CONFIGURATION & GENERAL PRECAUTIONS

(使用注意事项)

- Relative humidity: ≤ 80%.
- 相对湿度: ≤ 80%。
- Storage temperature: -10~60°C.
- 存储温度: -10~60°C。
- Operation temperature: 0~40°C.
- 使用温度: 0~40°C。
- Protect the board from static electricity in case of damage to the IC.
- 请使板卡远离静电。
- Keep the board away from conductor when it is working.
- 请确保板卡工作时远离导体。
- Don't push or pull the connectors when the board is working.
- 板卡工作时请勿拆解。
- Don't press, distort or disassemble the board.
- 勿受重压及弯折变形。
- Clean the board with soft dry cloth when it's dirty.
- 如果板卡上有灰尘, 请用干布擦拭。
- Don't power on before panel is correctly connected.
- 正确接好驱屏线前请勿接通电源。

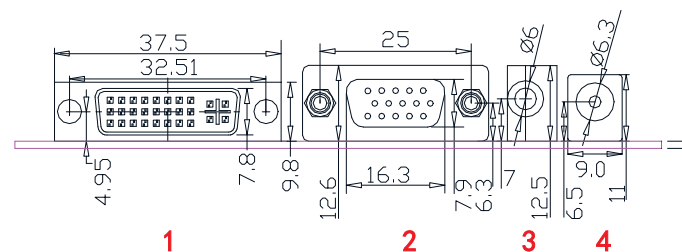
6. MECHANICAL DIMENSION (结构尺寸图)

配置1	
Ver.	A0
NO.	Description
1	DVI IN
2	VGA IN
3	PC AUDIO IN
4	DC IN



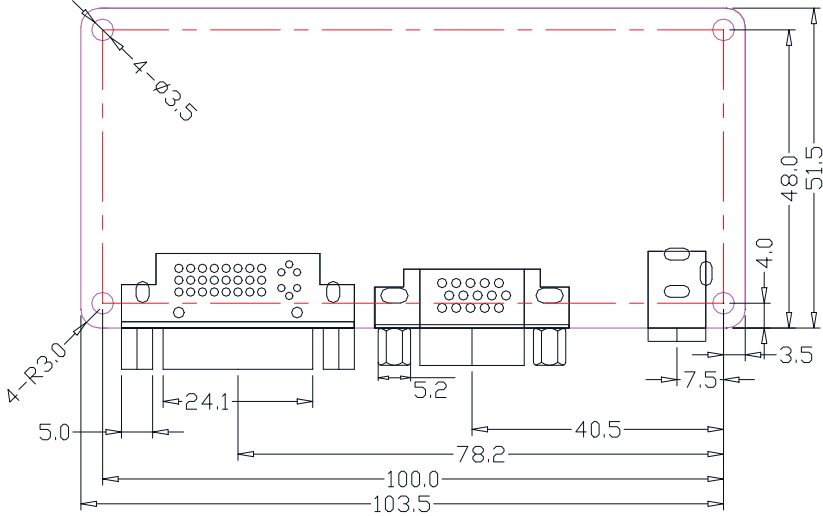
NOTE:

除端子外，顶层器件最高14mm、底层最高4mm

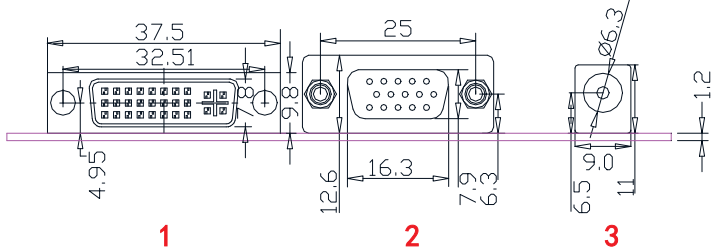


PCB Tolerance		Connector Tolerance (Unless Otherwise Stated)
PCB size	±0.15mm	
PCB thickness	≤1.0mm	±0.3mm
	>1.0mm	

配置3	
Ver.	A0
NO.	Description
1	DVI IN
2	VGA IN
3	DC IN



NOTE:
除端子外，顶层器件最高14mm、底层最高4mm



PCB Tolerance		Connector Tolerance
PCB size	±0.15mm	(Unless Otherwise Stated)
PCB thickness	≤1.0mm ±0.1mm	±0.3mm
	>1.0mm ±10%	