



SINOTECHNICS
Touch the World

Multi-Purpose LCD Monitor
Control Board Specification
Model: BTP-LC-RTD2556V5.0

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1. General Description (整体概述)

■ RTD2556V5.0 is a multi-purpose LCD monitor Control Board. It is designed to support EDP panel and can support the highest resolution to 1920*1200@60Hz. Support for internal switching to power through Micro USB interfaces and support USB functions.

RTD2556V5.0 是一个多功能液晶显示器驱动板。它支持 EDP 液晶显示屏,最高支持到 1920*1200@60Hz。支持通过 Micro USB 接口供电且支持 USB 功能的内部转接。

■ RTD2556V5.0 can support MINI HDMI INPUT, Micro USB switching, DC power and headphone output.

(RTD2556V5.0 支持 MINI HDMI 输入, Micro USB 转接, DC 供电和耳机输出。)

■ Support DC12V input or Micro USB 5V input (支持 DC12V 输入或 Micro USB 5V 输入)

Note: The specification of the board includes the description of all functions. Therefore, our clients can select the functions which they require to produce the board. But the specification can be introduced universally.

(注: 此规格书为板卡全功能规格书, 客户可以根据需要选择性的生产。此规格书具有通用性。)

2. Products Features (产品特性)

Detailed feature (详细特性)

MARKET AREA (市场区域)	Global market (全球市场)	
OSD LANGUAGE (菜单语言)	English, Chinese, French, German, Italian, Spanish, Portuguese, Russian (英语、汉语、法语、德语、意大利语、西班牙语、葡萄牙语、俄语)	
CHIPSET (芯片)	RTD2556	
VIDEO INPUT (视频输入)	HDMI	480i、480p、576i、576p、720p、1080i、1080p
PANEL (屏)	Panel type (屏类型)	EDP Panel
	Interface (接口)	30PIN/0.5 or 40PIN/0.5 EDP INTERFACE
	Resolution (分辨率)	1920*1200@60Hz 及以下
POWER (功率)	Power Requirement (电源需求)	12V DC input
	EDP Signal VCC (EDP 信号电压)	3.3V
	Management (电源管理)	Low power consumable mode (only for PCB board): standby ≤ 0.5w (PCB 板待机功耗)

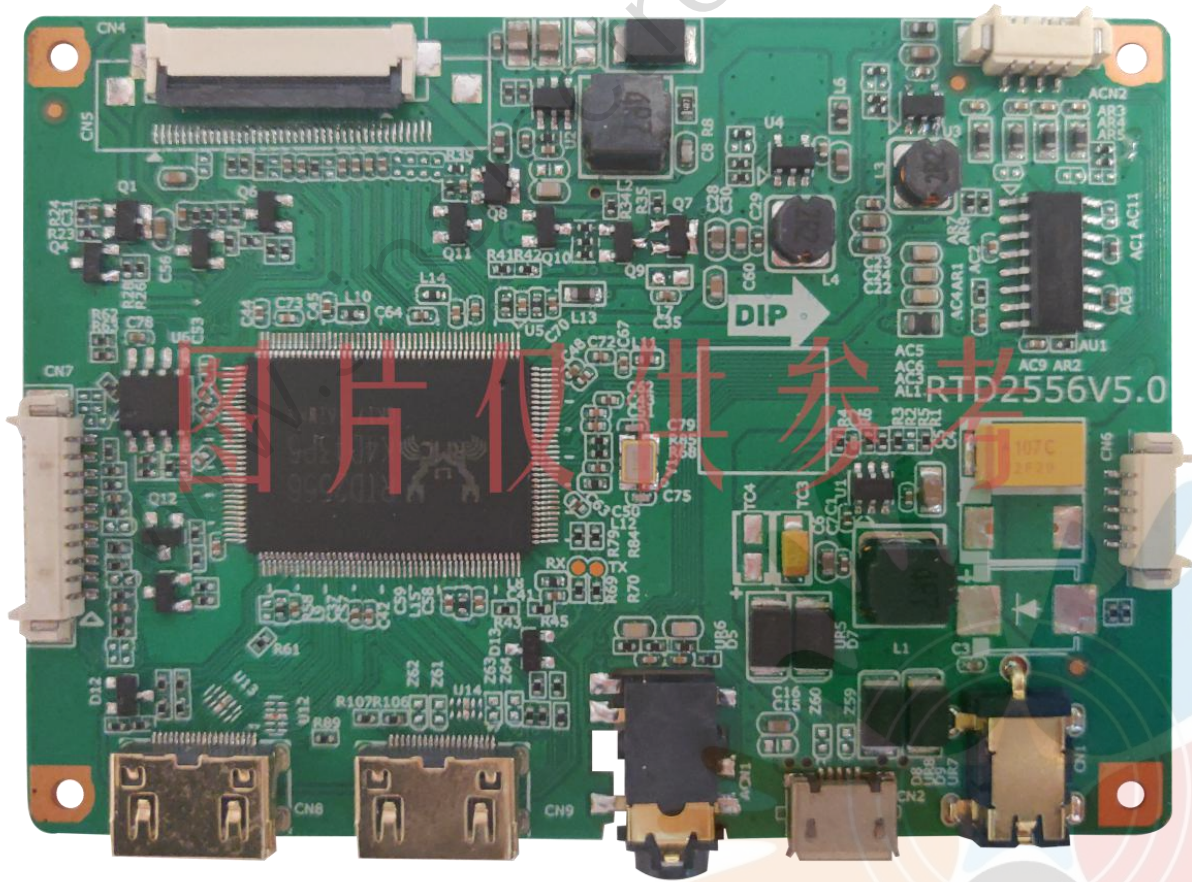


KEY FUNCTIONS (按键功能)	MENU,AUTO,LEFT,RIGHT,ON/OFF (菜单, 自动, 左, 右, 开/关)		
AUDIO OUTPUT (音频输出)	2*1.5W@ 4Ω		
TERMINALS (端子)	Input	HDMI	2 MINI HDMI terminal (2 MINI HDMI 端子)
		Micro USB	1 Micro USB terminal (1 Micro USB 端子)
		DC	1 DC terminal(1 DC 端子)
	Output	Earphone Output	1 Earphone terminal black color (1 耳机端子, 黑色)

3. Port Configuration (端口配置)

All of pictures below are only for reference. Please take the actual objects as a standard.

(以下图片仅供参考,请以实物为准)





配置一:

Front View Of RTD2556V5.0 (前视图)



1	2	3	4	5
MINI HDMI1	MINI HDMI2	EARPHONE	Micro USB	DC IN

CAD DIMENSIONS (CAD 尺寸)

1	MINI HDMI 1	2	MINI HDMI 2
3	EARPHONE	4	Micro USB
5	DC	6	
7		8	

NOTE:1. 公板开模请以红色孔位为准
NOTE:1. The public mold opening, please take the red hole position as the standard.

NOTE:2. 总高度限制在5mm内。

PCB Tolerance	
PCB size	±0.15mm
PCB thickness	≤1.0mm ±0.1mm
Connector Tolerance (Unless Otherwise Stated)	±0.5mm

型号 Model	RTD2556V5.0	审核 Auditing	
日期 Date	2020.07.22	批准 Approve	
设计 Design		单位 Unit	
备注 Remarks			

4. Interface Definition (接口定义)

CN4 (30PIN/0.5)FFC INTERFACE (FFC 接口)



NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	NC	NC
2	GND	Ground (地)
3	LANE1_N	True Signal for Main Link 1



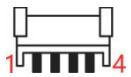
4	LANE1_P	Component Signal for Main Link 1
5	GND	Ground (地)
6	LANE0_N	True Signal for Main Link 0
7	LANE0_P	Component Signal for Main Link 0
8	GND	Ground (地)
9	AUX_P	True Signal for Auxiliary Channel
10	AUX_N	Component Signal for Auxiliary Channel
11	GND	Ground (地)
12	VDD33	LCD logic and driver power
13	VDD33	LCD logic and driver power
14	NC	NC
15	GND	Ground (地)
16	GND	Ground (地)
17	HPD	Hot Plug Detect Signal
18	GND	Ground (地)
19	GND	Ground (地)
20	GND	Ground (地)
21	GND	Ground (地)
22	BL_EN	BACKLIGHT ON/OFF (背光开关)
23	ADJ	BRI_ADJ (背光亮度调节)
24	NC	NC
25	NC	NC
26	BL_POWER	BACKLIGHT POWER (背光电源)
27	BL_POWER	BACKLIGHT POWER (背光电源)
28	BL_POWER	BACKLIGHT POWER (背光电源)
29	BL_POWER	BACKLIGHT POWER (背光电源)
30	NC	NC

CN7 (10PIN/1.25) KEY INDICATOR IR INTERFACE (按键指示灯 IR 接口)

NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	5V	+5V DC power supply (+5V 直流供电)
2	POWER	POWER ON/OFF
3	R	Red indicator (红色指示器)
4	G	Green indicator (绿色指示器)
5	GND	Ground (地)
6	LEFT	LEFT Key (左键)
7	RIGHT	RIGHT Key (右键)
8	AUTO	AUTO (自动)
9	MENU	MENU Key (菜单)
10	IR	Remote receiver (遥控信号输入端)



ACN2(4PIN/1.25mm) SPEAKER INTERFACE (喇叭接口)



NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	LN	Negative left audio channel out (左声道音频输出负极)
2	LP	Positive left audio channel out (左声道音频输出正极)
3	RP	Positive right audio channel out (右声道音频输出正极)
4	RN	Negative right audio channel out (右声道音频输出负极)

CN6(5PIN/1.25mm) USB TRANSFER INTERFACE (USB 转接接口)



NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	GND	Ground (地)
2	GND	Ground (地)
3	D+	USB data+ (USB 数据+)
4	D-	USB data- (USB 数据-)
5	5V	+5V DC power supply (+5V 直流供电)

5. International Standard (国际标准)

Safety (安全)

The power supply shall compliance with following Criterion:

(电源安全性满足下列标准)

- ◆ UL60950/UL60065
- ◆ EN60950/EN60065
- ◆ GB4943-2011/GB8898-2011
- ◆ IEC60950/IEC60065

Isolation (隔离)

- ◆ HI-POT (耐压测试)

Input to Output: 3000Vac 50Hz 1minute \leq 10mA

- ◆ Isolation Resistance (隔离电阻)

Input to Output: DC 500V 50M Ω min (at room temperature)





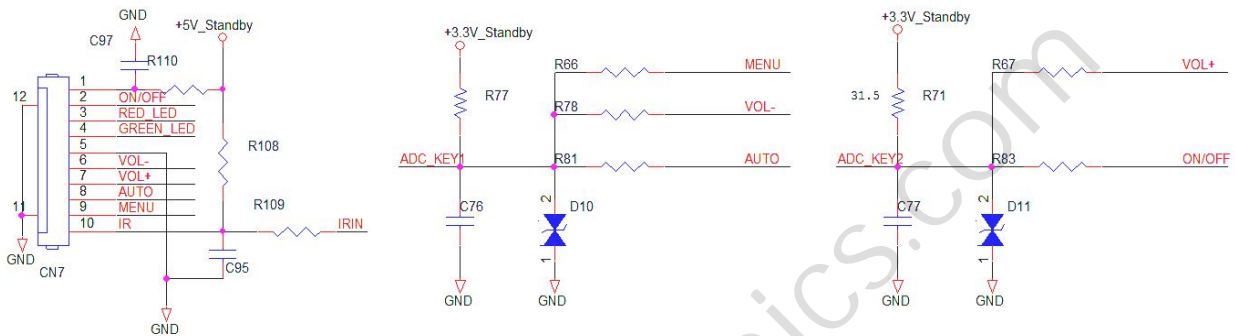
◆ Standards and requirements for static electricity (静电标准及要求)

EN 55035/IEC 61000-4-2/GB-T17626.2: +/- 4KV for Contact discharge; +/- 8KV for Air discharge

◆ EMI standards (EMI 标准)

EN55032/GB13837/FCC PART15

6. Key & IR Board System Schematic (按键遥控原理图)



7. Matters Need Attention (注意事项)

Mount Matters Need Attention (装配注意事项):

D	≤5.5mm
H	≥7.0mm

Note:

◆ Mount the TV board to the mounting board using M3 screw.

The maximum value of the tightening torque is 0.4N/M. The insertion depth of the screw should be less 5.5mm.

◆ If $H \leq 7.0\text{mm}$,Add Mylar under PCB bottom.

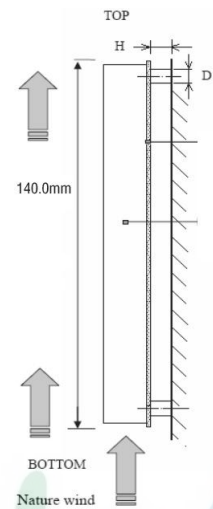
◆ Mount the TV board to the mounting board using M3 screw.The maximum value of the tightening torque is 0.4N/M. The insertion depth of the screw should be less 5.5mm. (使用 M3 螺丝将电视板安装到安装板上。 拧紧力矩的最大值为 0.4N/M。 螺钉的插入深度应小于 5.5mm。)

◆ If $H \leq 7.0\text{mm}$.Add Mylar under PCB bottom. (如果 $H \leq 7.0\text{mm}$ 。 在 PCB 底部添加麦拉片。)

Environmental Requirement (环境要求):

◆ Do not pressed and distorted. (禁止挤压和弯曲)

◆ Keep away from static and water. (远离静电和水)





- ◆ Relative humidity : 10% ~ 90%. (相对湿度: 10% ~ 90%)
- ◆ Storage humidity : 5% ~ 95%. (储存湿度: 5% ~ 95%)
- ◆ Storage temperature: -45~ +85°C. (储存温度: -45~ +85°C)
- ◆ Operation temperature: -30~ +80°C. (操作温度: -30~ +80°C)
- ◆ Cooling Method: Ventilation cooling. (冷却方式: 通风)
- ◆ The production shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on it. (该产品不能遭到水滴或水溅, 而且设备上不能放置诸如花瓶一类装满液体的物品)
- ◆ Please use it under the condition of good aeration. (该产品使用时需有良好通风)

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