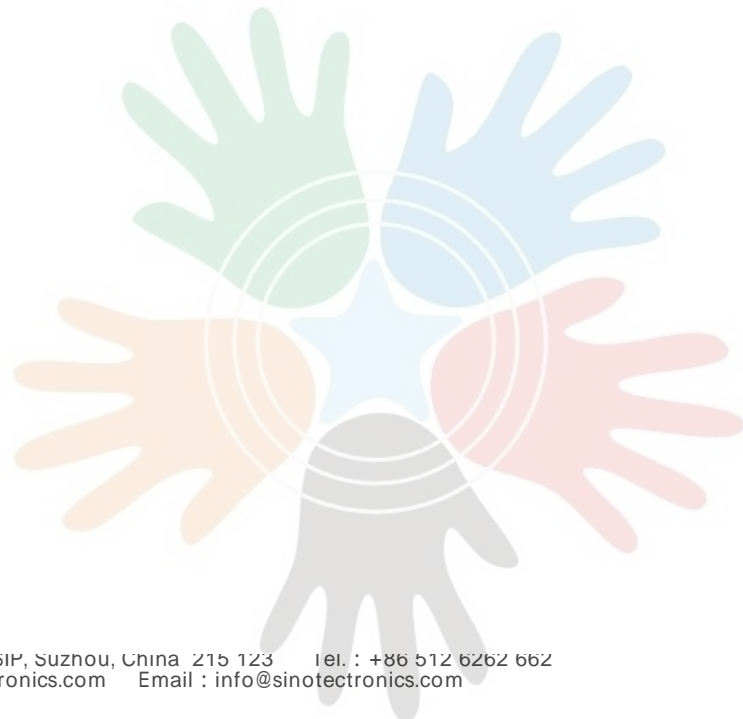


MultiPurpose LED Monitor
Control Board Specification
Model: RTD2555V1.0

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A1	ALL	First edition	2022.8.1

1. General Description (整体概述)

■RTD2555V1.0 is a multi-function is a multi-function LCD display driver board, suitable for the global market, can support driving EDP interface LCD panel, support HDMI input, headset output.

RTD2555V1.0是一款多功能是一款功能液晶屏显示器驱动板，适用于全球市场，可支持驱动EDP接口的液晶面板，支持HDMI输入，耳机输出。

■RTD2555V1.0 support DC input, can support the 12 v DC power supply.

RTD2522V1.0 支持DC输入，可支持12V DC供电。

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)

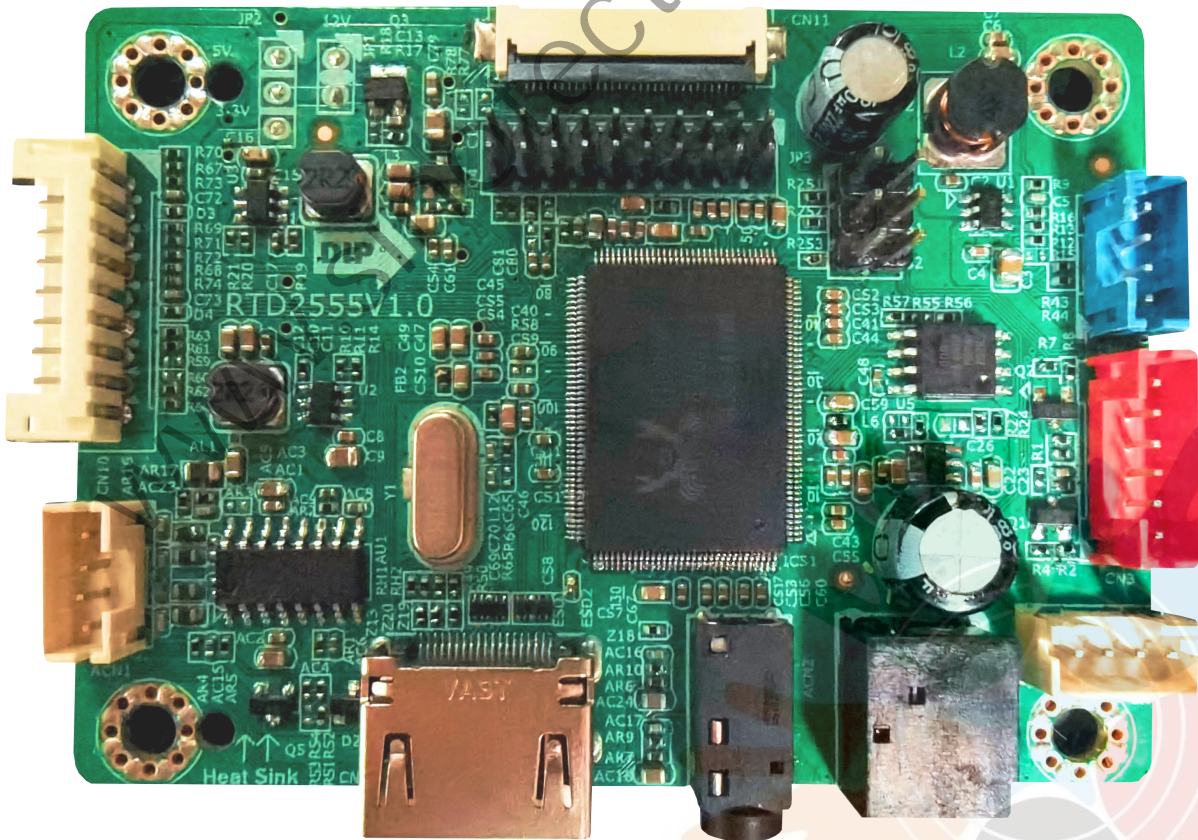
DETAILED FEATURE (详细特性)

CHIPSET (芯片)	RTD2555		
MARKET AREA (市场区域)	Global market (全球市场)		
Panel (面板)	Panel type: TFT LCD (屏类型)		
	Voltage: 3.3V (电压)		
	Interface: Dual EDP Dupont interface /EDP FFC interface (2Lene杜邦接口/EDP FFC接口)		
	Resolution: Up to 1920×1200 (分辨率)		
OSD LANGUAGE (菜单语言)	English (英文), Chinese (中文), French (法语), Spanish (西班牙语), Portuguese (葡萄牙语), Russian (俄语) (Option)		
Signal input (信号输入)	HDMI	Color	6bit, 8bit, 10bit, 12bit
		Resolution (分辨率)	Up to 1920*1200@75HZ
	I2C	DDC, EDID	
POWER (功率)	DC Adapter (直流适配器)	12V	
	To panel (驱屏电压)	3.3V	

	Management (电源管理)	Low power consumable mode: standby<0.25W 低功耗模式:待机<0.25W
KEY FUNCTIONS (按键功能)	EXIT,M, AUTO,V-, V+, G,R,O/F 退出, 菜单, 自动, 音量-, 音量+, 绿色指示灯, 红色指示灯, 开/关	
AUDIO OUTPUT (音频输出)	2*1.5W@8ohm MAX DC=5 V	
POWER AMPLIFIER (功放供电)	5V voltage (5V 电压)	
INPUT TERMIANL (输入端子)	HDMI	1 HDMI terminal (1 HDMI 端子)
	DC	1 DC terminal black color (1 个 DC 黑色端子)
OUTPUTERMIANL (输出端子)	To Panel	EDP屏FFC接口 30PIN/0.5mm/EDP屏杜邦插针 20PIN/2.0mm
	Earphone	1×Earphone terminal black color (1 耳机端子, 黑色)

3. TERMINAL AND STRUCTURE DIAGRAM (端子与结构图)

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)





OPTION1: Front View Of RTD2555V1.0 (正视图)

1	2	3
HDMI	EARPHONE	DC IN

CAD DIMENSIONS (CAD尺寸)

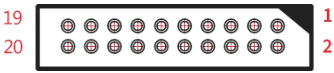
1	HDMI	2	EARPHONE
3	DC IN		

PCB size	±0.15mm	
PCB thickness	≤1.0mm	±0.1mm
	>1.0mm	±10%
Connector Tolerance (Unless Otherwise Stated)		
±0.5mm		

型号 Model	RTD2555V1.0	审核 Auditing	
日期 Date	2022.05.26	批准 Approve	
设计 Design		单位 Unit	
备注 Remarks			

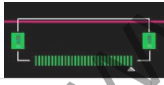
4. INTERFACE DEFINITION (接口定义)

JP3 (2*10PIN/2.0MM)EDP panel Dupont socket (EDP杜邦插针接口)



NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	VCC	Power supply (屏电压)
2	HPD	Hot Plug Detect Output
3	GND	Ground (地)
4	GND	Ground (地)
5	XOP	Display Port Lane 0 negative output
6	HON	Display Port Lane 0 positive output
7	LIN	Display Port Lane 1 negative output
8	LIN	Display Port Lane 1 positive output
9	NC	NC
10	NC	NC
11	NC	NC
12	NC	NC
13	GND	Ground (地)
15	ON	Display Port AUX+ channel positive signal
16	OP	Display Port AUX- channel negative signal
17	GND	Ground (地)
18	GND	Ground (地)
19	VCC	Power supply (屏电压)
20	VCC	Power supply (屏电压)

CN11 (30PIN/0.5MM)EDP Panel FFC INTERFACE (EDP屏FFC接口)

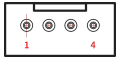


NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	NC	NC
2	GND	Ground (地)
3	Lane1_N	Complement Signal Link Lane 1
4	Lane1_P	True Signal Link Lane 1
5	GND	Ground
6	Lane0_N	Complement Signal Link Lane 0

7	Lane0_P	True Signal Link Lane 0
8	GND	Ground
9	AUX_CH_P	True Signal Auxiliary Ch
10	AUX_CH_N	Complement Signal Auxiliary Ch
11	GND	Ground
12	LCD_VCC	LCD logic and driver power
13	LCD_VCC	LCD logic and driver power
14	NC	NC
15	LCD_VCC	LCD logic and driver power
16	LCD_VCC	LCD logic and driver power
17	HPD	HPD signal pin
18	GND	Ground (地)
19	GND	Ground (地)
20	GND	Ground (地)
21	GND	Ground (地)
22	EN	Backlight On/Off (背光开/关)
23	ADJ	Backlight adjust for dimming (背光调节)
24	NC	NC
25	NC	NC
26	BL_PWR	Backlight power (背光电源)
27	BL_PWR	Backlight power (背光电源)
28	BL_PWR	Backlight power (背光电源)
29	BL_PWR	Backlight power (背光电源)
30	NC	NC

CN3(6PIN/2.0MM) Constant current plate interface (恒流板接口)

NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	GND	Ground (地)
2	GND	Ground (地)
3	ADJ	Brightness adjustment (亮度调节)
4	EN	Back-light ON/OFF control (背光开关控制)
5	12V	+12V DC Power supply (+12v 直流供电)
6	12V	+12V DC Power supply (+12v 直流供电)

CN1(4PIN/2.0MM) DC external dump interface (DC 外甩接口)

NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	12V	+12V DC Power supply (+12V直流供电)
2	12V	+12V DC Power supply (+12V直流供电)
3	GND	Ground (地)
4	GND	Ground (地)

CN6(4PIN/2.0MM)UART INTERFACE (UART 接口)

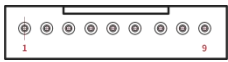
NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	GND	Ground (地)
2	RX	Reception port (RX接收数据)
3	TX	Transmission port (TX发送数据)
4	5V	+5V Power Supply (+5V 供电)

CN27(6PIN/2.54mm) Resolution jumper pin (分辨率跳帽插针)

NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	S0	Screen resolution selection (屏幕分辨率选择)
2	GND	Ground (地)
3	S1	Screen resolution selection(屏幕分辨率选择)
4	GND	Ground (地)
5	S2	Screen resolution selection(屏幕分辨率选择)
6	GND	Ground (地)

普通程序跳帽定义 1: 插上跳帽 0: 不插跳帽

像素	S0	S1	S2	排位
1920×1080	0	0	0	0
1366×768	1	0	0	1
1280×800	0	1	0	2
1600×800	1	1	0	3
1024×768	0	0	1	4
1920×1200	1	0	1	5

CN10(9PIN/2.0MM) KEY INTERFACE (按键接口)


NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	EXIT	EXIT Key (退出)
2	MENU	MENU Key (菜单)
3	AUTO	AUTO Key (自动)
4	V-	V- Key (音量-)
5	V+	V+ Key (音量+)
6	GND	Ground (地)
7	G	Green indicator (绿色指示器)
8	R	Red indicator (红色指示器)
9	ON/OFF	ON/OFF Key (开/关)

ACN1 (4PIN/2.0mm) SPEAKER INTERFACE (喇叭接口)

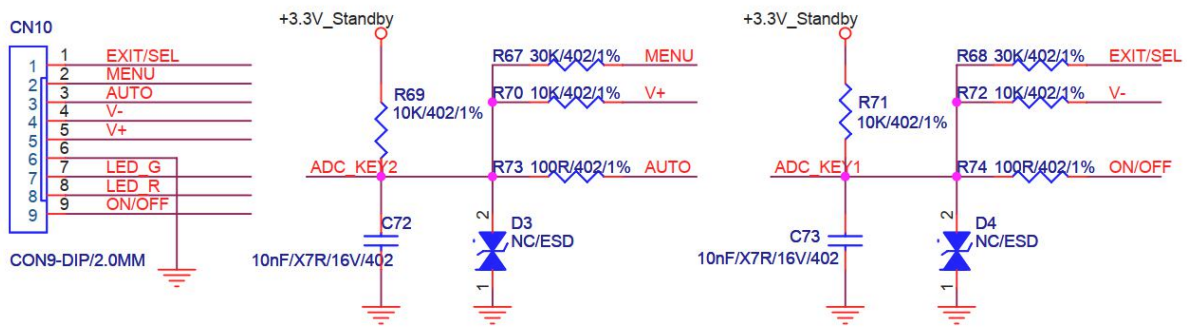

NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	R+	Positive Right audio channel out (右声道音频输出正极)
2	R-	Negative Right audio channel out (右声道音频输出负极)
3	L-	Negative Left audio channel out (左声道音频输出正极)
4	L+	Positive Left audio channel out (左声道音频输出负极)

5. ELECTRICAL CHARACTERISTICS (电气特性)

◆ DC Input Electrical Specifications (DC 输入特性)

Parameter	Min.	Typ.	Max.	Unit	Remark
+12V Supply voltage	11.5	12.0	12.5	V	-
Current setting per string	-	4	-	A	-

6. KEY BOARD SYSTEM SCHEMATIC (按键原理图)



7. Matters Need Attention (注意事项)

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

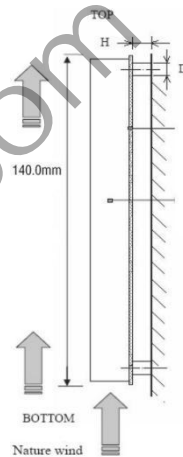
D	≤5.5mm
H	≥7.0mm

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.



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: -10~ +60°C. (储存温度: -10~ +60°C)

◆Operation temperature: 0~ +40°C. (操作温度: 0~ +40°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)