

SPECIFICATION
产品规格书

product model	产品型号:	GRTD2281-V1.1K
product type	产品类型:	多功能 LCD-PC 驱动板
		Multi-function LCD-PC AD board
Document NO	文档编码:	24022601

RECORD OF REVISIONS (修改记录)

REVISION NO. 版本	DESCRIPTION 描述	REVISION DATE 修改日期
VER1.1K	ISSUE / 发布	2024-02-26

地址： 深圳市龙华新区福城街道章阁市场桂月路硅谷动力低碳科技产业园A1栋4楼

Address: Floor 4, Building A1, Silicon Valley Power Low Carbon Technology Demonstration Park,Guiyue Road, Zhangge Community, Guanlan Town, Longhua New Area, ShenZhen City,China518000;

Mobile / wechat 13926514586

目录

1. GENERAL DESCRIPTION（整体概述） 3

2. FUNCTION LAYOUT（产品外观图） 3

3. FEATURES（产品特征） 4

4. INTERFACE DEFINITION（接口定义） 5

4.1 DC IN CONNECTOR(DC 电源输入) CN1(MICRO-USB5P2J) 5

4.2 DC IN CONNECTOR(DC 电源输入) CN2(USB-TYPE-C) 5

4.3 DC IN CONNECTOR(DC 电源输入) CN11(SMT4Z125T) 5

4.4 HDMI IN CONNECTOR（HDMI 信号输入） CN4B（HDMI） 5

4.5 HDMI IN CONNECTOR（HDMI 信号输入） CN4（MINI-HDMI） 5

4.6 CAPACITIVE TOUCH SCREEN CONNECTOR(电容触摸屏连接器)
CN6(FPC6PIN0.5)/CN9(SIP6Z125T) 6

此部件备选 THIS PART IS OPTIONAL 6

连接 USB 插座至电脑，触摸控制方可有效。（CONNECT USB INTERFACE TO COMPUTER, TOUCH CONTROL CAN BE EFFECTIVE.） 6

4.7 LCD PANEL INTERFACE（液晶屏接口） CN3(FPC-40PIN-0.5) 6

5. CONTROLLER DIMENSIONS（板卡结构图） 8

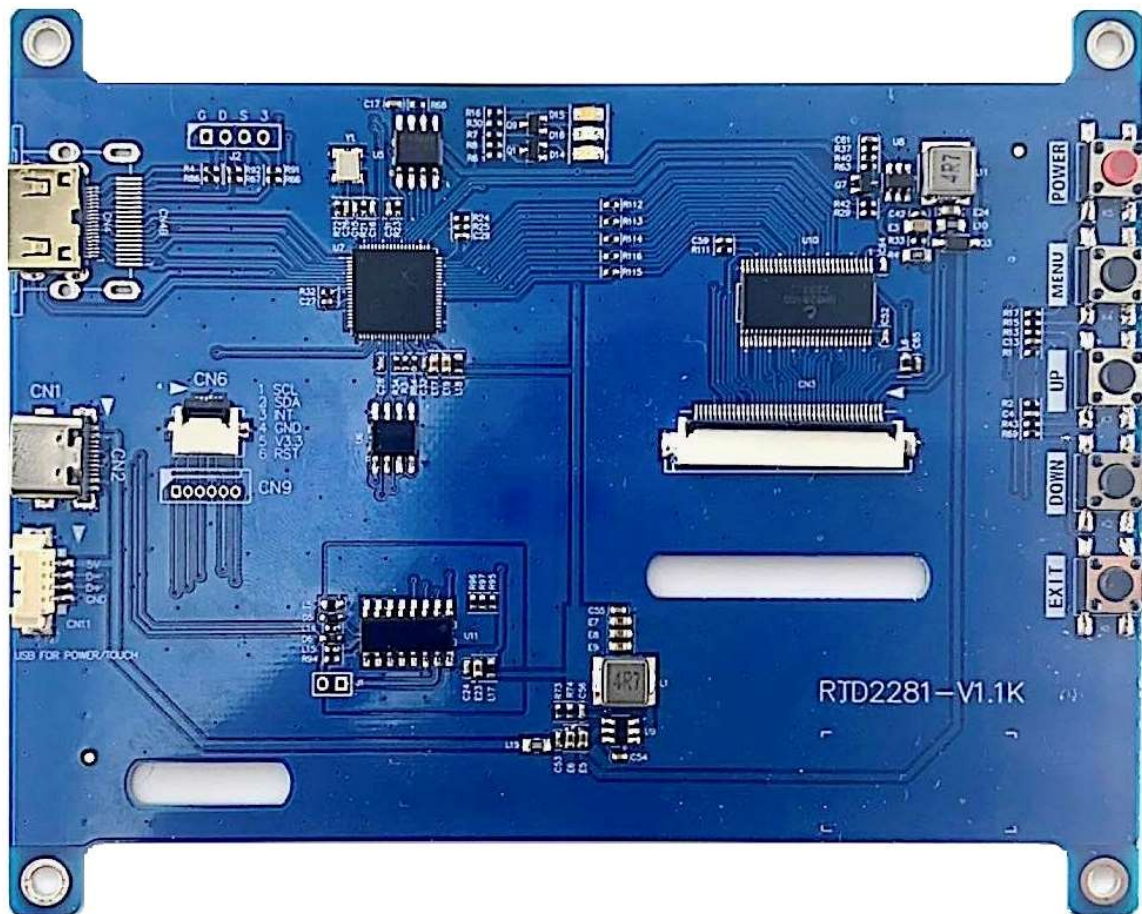
6. OPERTION REQUIREMENT（操作要求） 9

1. GENERAL DESCRIPTION (整体概述)

GRTD2281-V1.1K is a 5.0inch LCD display driver board; supports HDMI input; support capacitive touch panel.

GRTD2281-V1.1K 是一个 5.0 寸 LCD 显示驱动板；支持 HDMI 输入；支持电容屏。2

. FUNCTION LAYOUT (产品外观图)



(The color of actual item may vary and the image is only for reference.)

实物颜色可能与此图有出入，此图仅供参考

3. FEATURES (产品特征)

Below you will find the detailed features.

MAIN CHIPSET 主芯片	RTD2281		
OSD LANGUAGE OSD 语言	Chinese, English, (French, Spanish, Italian, German, Portuguese, Dutch, Korean) (Option) 中文, 英语 (法语, 西班牙语, 德语, 日语)		
VIDEO INPUT 视频输入			
	HDMI	Format	Up to 800*480@50HZ
		Operating Speed	155MHz
AUDIO OUTPUT 音频输出	Frequency response		
	Output power		
TOUCH	Interface	USB	
	Touch Panel	6-wire capacitive touch panel	
POWER TO PANEL 驱屏电压	3.3V		
Management 电源管理	Standby Power Consumption < 0.2W (Board Only) 待机功耗< 0.2W (仅主板)		
KEY FUNCTIONS 按键功能	MENU, UP, DOWN, EXIT, POWER 菜单, 增加, 减小, 退出, 电源开/关		

4. INTERFACE DEFINITION (接口定义)

4.1 DC IN CONNECTOR (DC 电源输入) CN1 (MICRO-USB5P2J)

NO. (管脚)	SYMBOL	DESCRIPTION (描述)
CN1	板上丝印	
1	5V	+5V DC Power supply (+5V 直流供电)
2	D-	USB bus signal (USB 总线信号)
3	D+	USB bus signal (USB 总线信号)
4	NC	NC
5	GND	Ground (地)

4.2 DC IN CONNECTOR (DC 电源输入) CN2 (USB-TYPE-C)

NO. (管脚)	SYMBOL	DESCRIPTION (描述)
CN2	板上丝印	
1 , 2,15,16	GND	Ground (地)
3 , 4,13,14	5V	+5V DC Power supply (+12V 直流供电)
5,6,11,12	NC	NC
7,9	D-	USB bus signal (USB 总线信号)
8,10	D+	USB bus signal (USB 总线信号)

4.3 DC IN CONNECTOR (DC 电源输入) CN11 (SMT4Z125T)

NO. (管脚)	SYMBOL	DESCRIPTION (描述)
CN1	板上丝印	
1	5V	+5V DC Power supply (+5V 直流供电)
2	D-	USB bus signal (USB 总线信号)
3	D+	USB bus signal (USB 总线信号)
4	GND	Ground (地)

4.4 HDMI IN CONNECTOR (HDMI 信号输入) CN4B (HDMI)

NO. 管脚	SYMBOL 板上丝印	DESCRIPTION (描述)
1-19	HDMI-19	HDMI standard interface (HDMI 标准接口)

4.5 HDMI IN CONNECTOR (HDMI 信号输入) CN4 (MINI-HDMI)

NO. 管脚	SYMBOL 板上丝印	DESCRIPTION (描述)
1-19	HDMI-	MINI HDMI standard interface (MINI HDMI 标准接口)

4.6 CAPACITIVE TOUCH SCREEN CONNECTOR(电容触摸屏连接器)
CN6(FPC6PIN0.5)/CN9(SIP6Z125T)

此部件备选 This part is optional

连接 USB 插座至电脑，触摸控制方可有效。（Connect USB interface to computer, touch control can be effective.）

NO. (管脚)	SYMBOL	DESCRIPTION (描述)
CN6	板上丝印	
1	SCL	Capacitive touch panel SDA(电容触摸屏 SCL)
2	SDA	Capacitive touch panel SDA(电容触摸屏 SDA)
3	INT	Capacitive touch panel SDA(电容触摸屏 INT)
4	GND	signal ground(信号地)
5	V3.3	+3.3V power supply for capacitor screen port (电容触摸
6	RST	Capacitive touch panel SDA(电容触摸屏 RST)

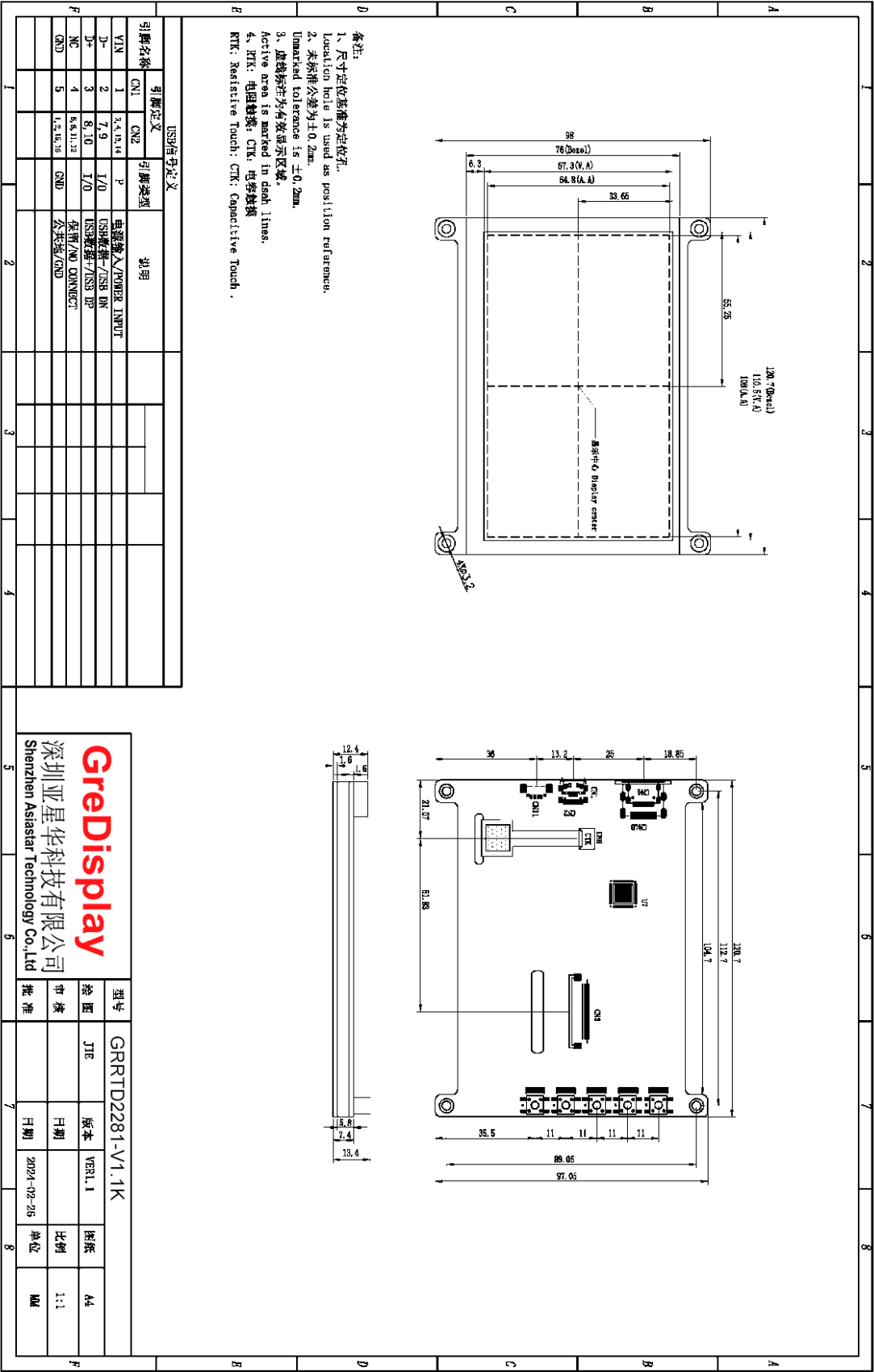
NO. (管脚)	SYMBOL	DESCRIPTION (描述)
CN9	板上丝印	
1	SCL	Capacitive touch panel SDA(电容触摸屏 SCL)
2	SDA	Capacitive touch panel SDA(电容触摸屏 SDA)
3	INT	Capacitive touch panel SDA(电容触摸屏 INT)
4	GND	signal ground(信号地)
5	V3.3	+3.3V power supply for capacitor screen port (电容触摸
6	RST	Capacitive touch panel SDA(电容触摸屏 RST)

4.7 LCD PANEL INTERFACE（液晶屏接口）CN3(FPC-40PIN-0.5)

NO. 管脚	SYMBOL 板上丝印	I/O	Function	Remark
1	VLED-	P	Power for LED backlight (Cathode)	
2	VLED+	P	Power for LED backlight (Anode)	
3	GND	P	Power ground	
4	DVDD	P	Power for Panel	
5	R0	I	Red data (LSB)	
6	R1	I	Red data	
7	R2	I	Red data	
8	R3	I	Red data	
9	R4	I	Red data	
10	R5	I	Red data	
11	R6	I	Red data	

12	R7	I	Red data (MSB)	
13	G0	I	Green data (LSB)	
14	G1	I	Green data	
15	G2	I	Green data	
16	G3	I	Green data	
17	G4	I	Green data	
18	G5	I	Green data	
19	G6	I	Green data	
20	G7	I	Green data (MSB)	
21	B0	I	Blue data (LSB)	
22	B1	I	Blue data	
23	B2	I	Blue data	
24	B3	I	Blue data	
25	B4	I	Blue data	
26	B5	I	Blue data	
27	B6	I	Blue data	
28	B7	I	Blue data (MSB)	
29	GND	P	Power Ground	
30	DCLK	I	Sample clock	
31	DISP	I	Display on/off	
32	HS	I	Horizontal Sync Input	
33	VS	I	Vertical Sync Input	
34	DE	I	Data Input Enable	
35	NC	-	No connection	
36	GND	P	Power Ground	
37	X1	I/O	Right electrode – differential analog	
38	Y1	I/O	Bottom electrode – differential	
39	X2	I/O	Left electrode – differential analog	
40	Y2	I/O	Top electrode – differential analog	

5. CONTROLLER DIMENSIONS (板卡结构图)



6. OPERATION REQUIREMENT (操作要求)

- (1) Do not pressed and distorted. 请勿挤压和弯曲。
- (2) Keep away from static and water. 远离静电和水。
- (3) Relative humidity : $\leq 80\%$ 相对湿度: $\leq 80\%$
- (4) Storage temperature: $-20 \sim +60^{\circ}\text{C}$ 储藏温度 : $-20 \sim +60^{\circ}\text{C}$
- (5) Operation temperature: $-0 \sim +4-60^{\circ}\text{C}$ 使用温度: $-0 \sim +60^{\circ}\text{C}$