

SPECIFICATION
产品规格书

product model	产品型号:	GRTD2281-V1.0S
product type	产品类型:	多功能 LCD-PC 驱动板
		Multi-function LCD-PC AD board
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RECORD OF REVISIONS (修改记录)

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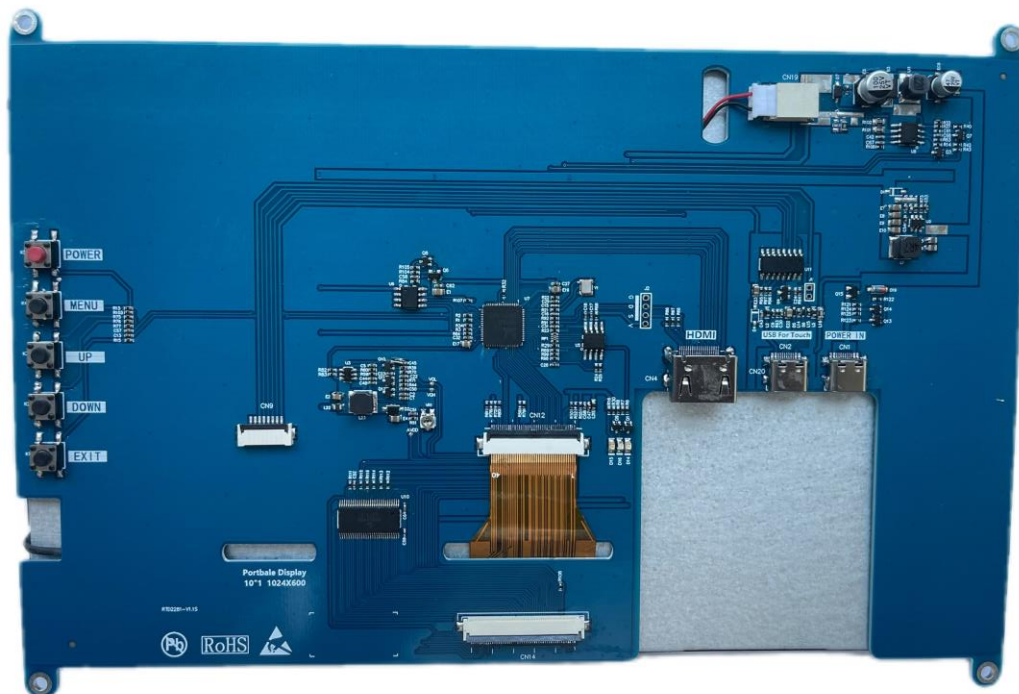
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1. GENERAL DESCRIPTION (整体概述)

GRTD2281-V1.0S is a 10.1inch LCD display driver board; Supports HDMI input; Support for highlighted backlight and 8-wire capacitive touch panel.

GRTD2281-V1.0S 是一个 10.1 寸 LCD 显示驱动板；支持 HDMI 输入；支持高亮背光；支持 8 线电容触摸屏。

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 1920*1080@50HZ
		Operating Speed	155MHz
POWER TO PANEL 驱屏电压	3.3V		
TOUCH	Interface	USB	
	Touch Panel	8-wire capacitive touch panel	
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	AUTO, MENU, LEFT, RIGHT, EXIT, POWER 自动, 菜单, 减小, 增加, 退出, 电源开/关		

4. INTERFACE DEFINITION（接口定义）

4.1 DC IN CONNECTOR(外接 DC 电源输入) CN1 (TYPE-C)

NO. (管脚)	SYMBOL	DESCRIPTION（描述）
CN1	板上丝印	
A4, A9, B4, B9	5V	+5V DC Power supply (+5V 直流供电)
A1, A12, B1, B12	GND	Ground (地)
OTHER	NC	No connection

4.2 USB IN CONNECTOR(外接 USB 输入) CN2/CN20(TYPE-C /MICRO 备选)

此部件备选 This part is optional

此插座为触摸控制的电脑接口 (This socket is a computer interface of touch controlled)

NO. (管脚)		SYMBOL	DESCRIPTION（描述）
CN2	CN20	板上丝印	
A4, A9, B4, B9	1	5V	+5V power drain from host USB port (+5V USB 电源)
A7, B7	2	D-	USB bus signal (USB 总线信号)
A6, B6	3	D+	USB bus signal (USB 总线信号)
A1, A12, B1, B12	5	GND	signal ground (信号地)
OTHER	4	NC	No connection

4.3 HDMI IN CONNECTOR (HDMI 信号输入) CN4 (HDMI)

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

4.4 CAPACITIVE TOUCH SCREEN CONNECTOR(电容触摸屏连接器) CN9 (8PIN1.0)

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 板上丝印	DESCRIPTION （描述）
1, 8	DGND	Signal ground(信号地)
2	NC	No connection
3	VK3. 3	+3.3V power supply for capacitor screen (电容触摸屏+3.3V 电
4	CTK-SCL	Capacitive touch panel SDA(电容触摸屏 SCL)
5	CTK-SDA	Capacitive touch panel SDA(电容触摸屏 SDA)
6	CTK-INT	Capacitive touch panel SDA(电容触摸屏 INT)
7	CTK-RST	Capacitive touch panel SDA(电容触摸屏 RST)

4.5 BACKLIGHT CONNECTOR （背光连接器）CN19 (BH3.5-2P)

此部件备选 This part is optional

NO. 管脚	SYMBOL 板上丝印	DESCRIPTION （描述）
1	LED+	Power for LED backlight (Anode)
2	LED-	Power for LED backlight (Cathode)

4.6 KEY（按键）K1, K2, K3, K4, K5 （SMD4J6*6）

此部件备选 This part is optional

NO. 管脚	SYMBOL 板上丝印	DESCRIPTION 描述
K1	EXIT	EXIT Key（退出键）
K2	DOWN	DOWN Key（DOWN 键）
K3	UP	UP Key（UP 键）
K4	MENU	MENU Key（菜单键）
K5	POWER	POWER Key（关机键）

4.7 LCD PANEL INTERFACE (液晶屏接口) CN14(FPC-50PIN-0.5)

NO. 管脚	SYMBOL 板上丝印	I/O	Function
1	LED+	P	Power for LED backlight (Anode)
2	LED+	P	Power for LED backlight (Anode)
3	LED-	P	Power for LED backlight (Cathode)
4	LED-	P	Power for LED backlight (Cathode)
5	GND	P	Power ground
6	VCOM	I	Common voltage
7	DVDD	P	Power for Panel
8	MODE	I	DE/SYNC mode select
9	DE	I	Data Input Enable
10	VS	I	Vertical Sync Input
11	HS	I	Horizontal Sync Input
12	B7	I	Blue data (MSB)
13	B6	I	Blue data
14	B5	I	Blue data
15	B4	I	Blue data
16	B3	I	Blue data
17	B2	I	Blue data
18	B1	I	Blue data
19	B0	I	Blue data (LSB)
20	G7	I	Green data (MSB)
21	G6	I	Green data
22	G5	I	Green data
23	G4	I	Green data
24	G3	I	Green data
25	G2	I	Green data
26	G1	I	Green data
27	G0	I	Green data (LSB)
28	R7	I	Red data (MSB)
29	R6	I	Red data
30	R5	I	Red data
31	R4	I	Red data
32	R3	I	Red data
33	R2	I	Red data
34	R1	I	Red data
35	R0	I	Red data (LSB)
36	GND	P	Power Ground

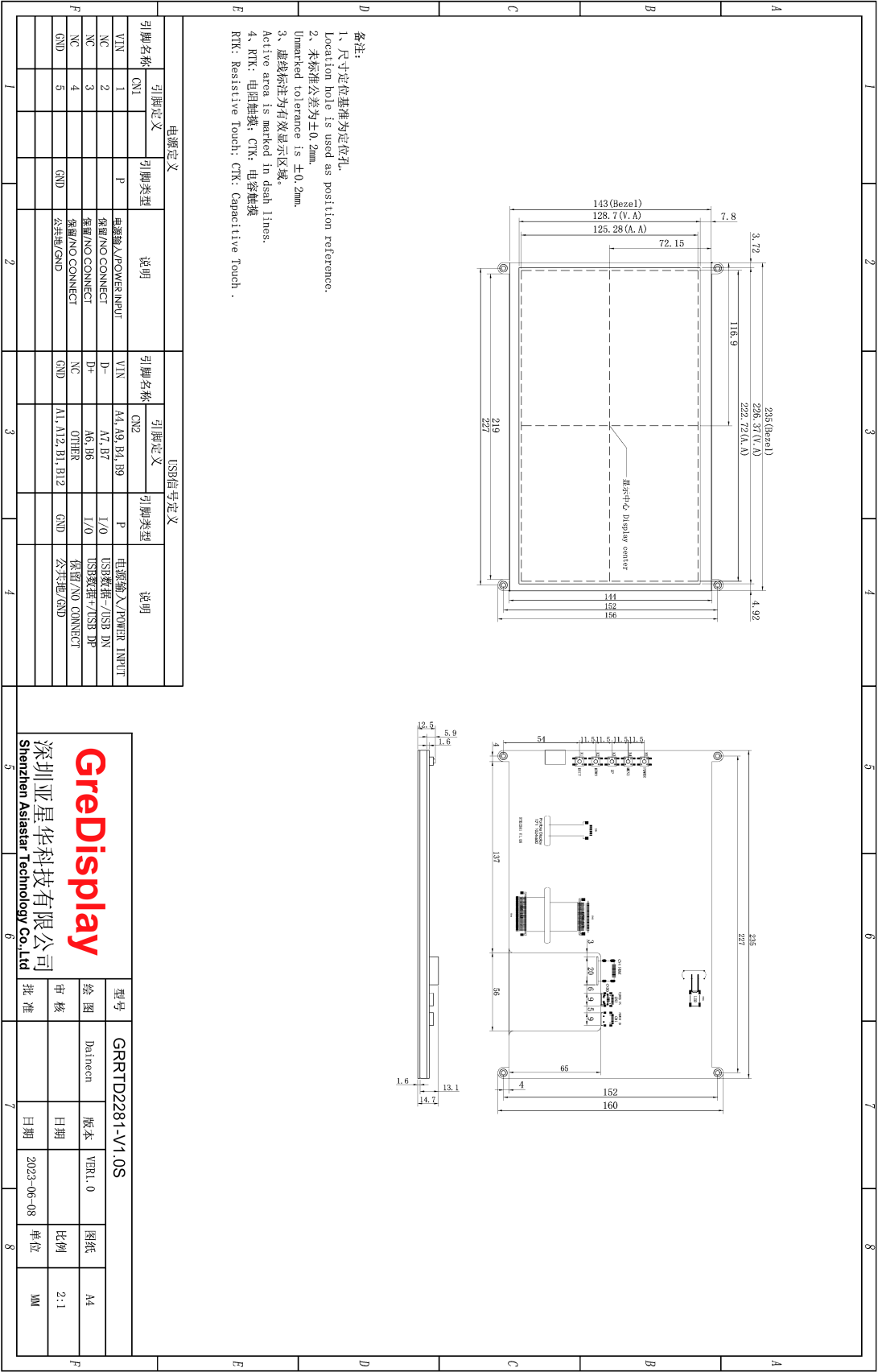
37	DCLK	I	Sample clock
38	GND	P	Power Ground
39	L/R	I	Left /right selection
40	U/D	I	Up/down selection
41	VGH	P	Gate ON Voltage
42	VGL	p	Gate OFF Voltage
43	AVDD	P	Power for Analog circuit
44	RESET	I	Global reset pin.
45	NC	-	No connection
46	VCOM	I	Common Voltage
47	DITHB	I	Dithering function
48	GND	P	Power Ground
49	NC	-	No connection
50	NC	-	No connection

4.8 LCD PANEL INTERFACE (液晶屏接口) CN12 (FPC-40PIN-0.5)

NO. 管脚	SYMBOL 板上丝印	I/O	Function
1	VCOM	I	Common voltage
2,3	DVDD	P	Power for Panel
4	NC	-	No connection
5	RESET	I	Global reset pin.
6	STBYB	I	Standby mode Normally pulled high STBYB=1normal operation STBYB=0 timing controller source Driver will turn off all output are High-Z
7	GND	P	Power Ground
8	RXE0-	I	LVDS EVEN 0- Signal (LVDS EVEN 0-信号) III
9	RXE0+	I	LVDS EVEN 0+ Signal (LVDS EVEN 0+信号)
10	GND	P	Power Ground
11	RXE1-	I	LVDS EVEN 1- Signal (LVDS EVEN 1-信号)
12	RXE1+	I	LVDS EVEN 1+ Signal (LVDS EVEN 1+信号)
13	GND	P	Power Ground
14	RXE2-	I	LVDS EVEN 2- Signal (LVDS EVEN 2-信号)
15	RXE2+	I	LVDS EVEN 2+Signal (LVDS EVEN 2+信号)

16	GND	P	Power Ground
17	RXEC-	I	LVDS EVEN Clock- Signal (LVDS EVEN Clock -信号)
18	RXEC+	I	LVDS EVEN Clock+ Signal (LVDS EVEN Clock+信号)
19	GND	P	Power Ground
20	RXE3-	I	LVDS EVEN 3- Signal (LVDS EVEN 3-信号)
21	RXE3+	I	LVDS EVEN 3+ Signal (LVDS EVEN 3+信号)
22	GND	P	Power Ground
23,24	NC	-	No connection
25	GND	P	Power Ground
26	NC	-	No connection
27	DIMO	O	Backlight CABC controller signal output
28	SELB	I	6bit/8bit mode select
29	AVDD	P	Power for Analog circuit
30	GND	P	Power Ground
31,32	LED-	P	Power for LED backlight (Cathode)
33	L/R	I	Left /right selection
34	U/D	I	Up/down selection
35	VGL	P	Gate OFF Voltage
36	CABCEN1	I	CABC H/W enable
37	CABCEN0	I	CABC H/W enable
38	VGH	P	Gale ON Voltage
39,40	LED+	P	Power for LED backlight (Anode)

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: $-0\sim+60^{\circ}\text{C}$ 使用温度: $-0\sim+60^{\circ}\text{C}$