



5 寸串口屏

5 inch display with HMI board

产品规格书

Specification

Product model:PV050800480-HMI Board

版本 V 1.0

Version:v 1.0

| 版本 Version | 日期 Date | 说明 Description |
|---------------|------------|------------------------------|
| V1.0 | 2022/09/01 | 第一版发行 First edition issue |
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一、前言 PREFACE

欢迎选用我公司产品，感谢您对我公司产品的支持！为了您能更好的使用本产品，使用前请仔细阅读本手册。
Welcome to choose our products, thank you for your support to our products! In order to better use this product, please read this manual carefully before use.

PV050800480-HMI Board 是我司的一款带触控的串口屏，采取模块化设计，具有极佳的电气特性和抗干扰性，工作稳定可靠，工业级标准。
PV050800480-HMI Board is one of our company's touch control serial screen, using modular design, has excellent electrical characteristics and anti-interference, stable and reliable work, industrial standards.

二、注意事项 Matters attention

- 防止明火、高温和碰撞，请不要置于雨中或潮湿的地方。
Protect against open flames, heat and collisions. Do not place in rain or damp.
- 在调试和使用过程中，操作不当可能导致设备损坏。
Improper construction may cause damage to the equipment during commissioning and use.
- 请勿带电拆装。
Do not disassemble and assemble with power on.
- 请勿在工作中频繁开关机，严禁敲打设备，以上行为都可能使
Do not turn the machine on and off frequently during work, and do not knock the device.

设备损坏和加速设备老化。

The above behaviors may damage the device and accelerate the aging of the device.

- 做到轻拿轻放，勿重压。

清洁——用软布擦拭清洁，勿使用酒精等化学溶液。

Clean---- Clean with a soft cloth, do not use alcohol and other chemical solutions.

电压——该设备使用 5V 直流电。

Voltage----The device uses 5v direct current.

能耗——本产品功耗极低，整机总功率不大于 2W。长期不使用

Energy Consumption----The power consumption of this product is very low, the total

时请关闭电源，并拔掉插头。power of the whole machine is not more than 2 W.

Please turn off the power and unplug when not in use for a long time.

环境——不要将本产品暴露在潮湿、雨、沙地或温度过高的地方

Environment----Do not store or use this product exposed to humidity, rain, sand or

存储和使用(加热设备或太阳光下)。

excessive temperature (heating equipment or sunlight).

注意——该设备在工作时请将之置于通风干燥无强烈震动的地方。

Pay attention----Please place the equipment in a ventilated and dry place without strong

vibration when working.



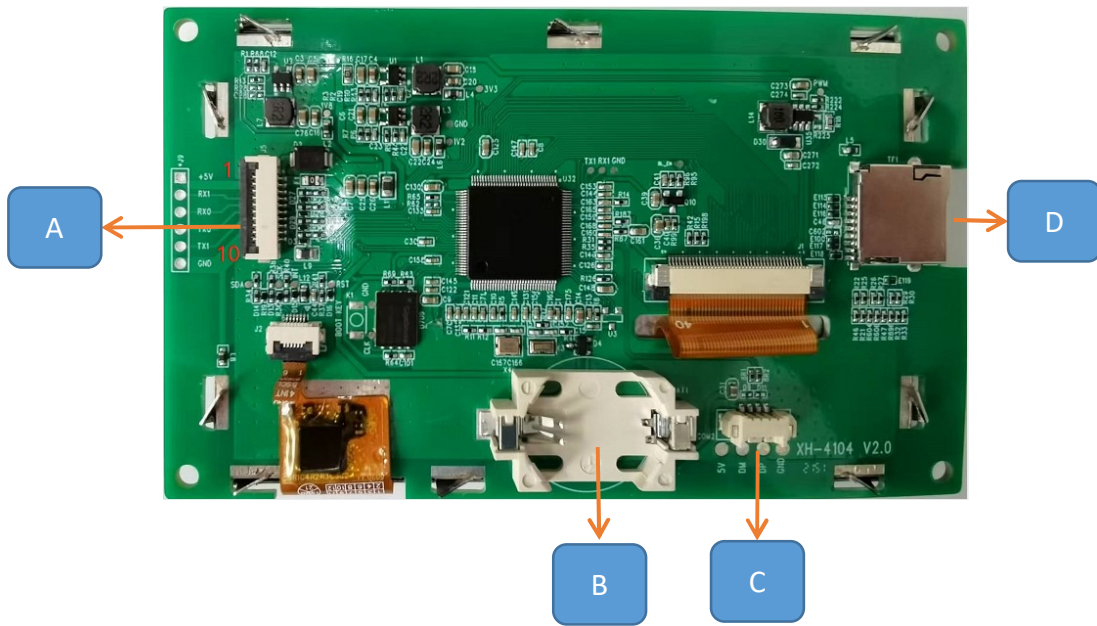
2、基本参数 Basic parameter

| 名称 name | 参数 parameter | 名称 name | 参数 parameter | ARM Cortex A7 Single core |
|---------------|----------------------------|------------------|-------------------------------|------------------------------|
| model | 整机型号 PV050800480-HMI Board | CPU | ARM Cortex A7 单核 最高 1.2GHz 主频 | 1.2GHz main frequency |
| dimension | 屏幕尺寸 5 英寸 | storage | 内存 | SPI FLASH 128mb |
| display ratio | 显示比例 16:9 | Operating system | 运行系统 | Linux3.4 |
| resolution | 分辨率 800X480 | touch panel | 触控 | 精密电容式 capacitive touch panel |
| brightness | 亮度 300cd/m2 | Input voltage | 输入电压 | DC5V |
| view angle | 可视角度 160° | Working current | 工作电流 | 300mA |
| backlight | 背光源 LED | | | |

接口性能参数 Interface performance parameter

| parameter | 参数 | Minimum 最小值 | Typical 典型值 | Maximum 最大值 | unit 单位 |
|--------------------|------------|---------------------------|-------------|-------------|---------|
| Serial baud rate | 串口波特率 | ----- | 115200 | ----- | bps |
| Serial ports | 串口输入 (RXD) | 3.0 | 3.3 | 3.4 | V |
| Serial port output | 串口输出 (TXD) | 2.0 | 3.3 | 5.0 | V |
| Interface level | 接口电平 | 3.3V TTL 电平 3.3VTTL level | | | |

3、接口说明 Interface description



| Serial number | 序列号 | 定义 Definition | 备注 Remarks |
|--------------------|-----|---------------|------------------------------------------------|
| Power socket | A | 电源插座 | 电源供电, UART 通信 Power supply, UART communication |
| RTC battery socket | B | RTC 电池插座 | RTC 供电电池插座 RTC power supply battery socket |
| USB burner | C | USB 烧录座 | USB 烧录连接口 USB burning connection port |
| Booth | D | 卡座 | TF 读卡座 TF read the booth |

A 连接口功能定义 Connection function port definition

| Sequence | 序列 | 定义 Definition | 备注 Remarks |
|----------|----|---------------|------------|
|----------|----|---------------|------------|



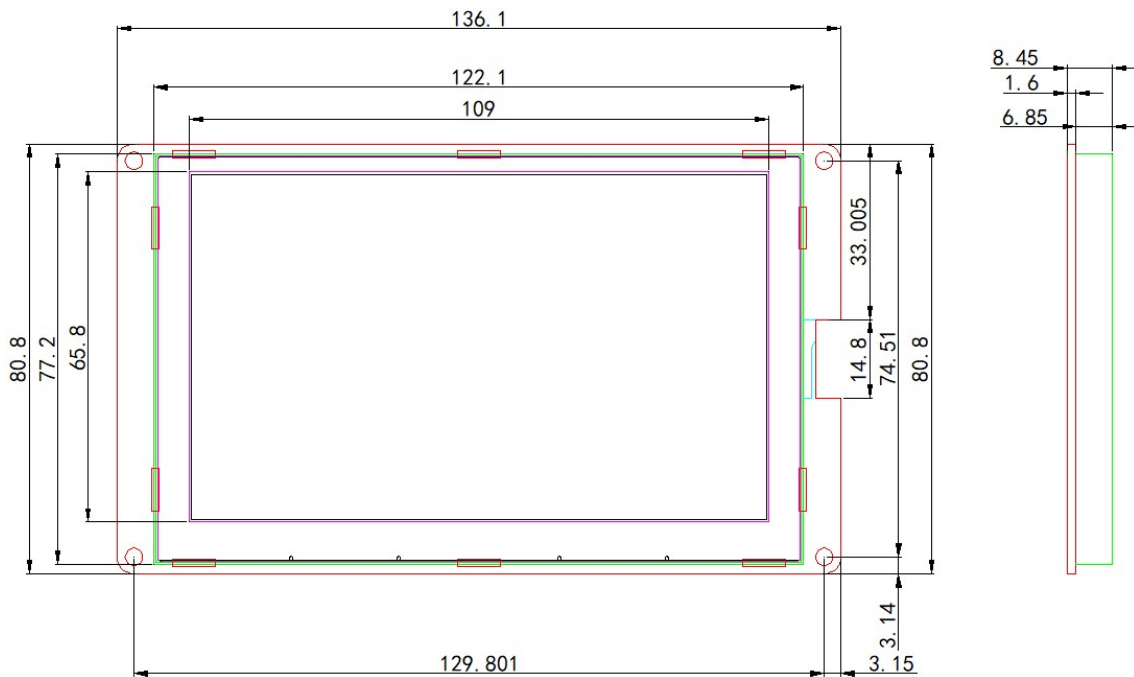
| 号 | | |
|----|-----------|----------------------------------------------------|
| 1 | VCC | 5V 电源正极输入 5v power supply positive input |
| 2 | VCC | 5V 电源正极输入 5v power supply positive input |
| 3 | VCC | 5V 电源正极输入 5v power supply positive input |
| 4 | MCU-RXD | 串口通讯 RXD1 信号 Serial port communication RXD1 signal |
| 5 | UART0-RXD | 串口通讯 RXD2 信号 Serial port communication RXD2 signal |
| 6 | UART0-TXD | 串口通讯 TXD2 信号 Serial port communication TXD2 signal |
| 7 | MCU-TXD | 串口通讯 TXD1 信号 Serial port communication TXD1 signal |
| 8 | GND | 电源地 Power supply ground |
| 9 | GND | 电源地 Power supply ground |
| 10 | GND | 电源地 Power supply ground |

C 连接口功能定义 Connection function port definition

Serial number

| 序号 号 | 定义 Definition | 备注 Remarks |
|---------|------------------|------------------------------------------|
| 1 | VCC | 5V 电源正极输入 5V power supply positive input |
| 2 | DM | USB-D-信号 USB-D -signal |
| 3 | DP | USB-D+信号 USB-D +signal |
| 4 | GND | 地 Ground |

4、结构尺寸：单位（mm） Structure size: Unit (mm)





四、使用要求

- ◆ 相对湿度 $\leq 80\%$ 。
- ◆ 存储温度 $-10 \sim +60$ 度。
- ◆ 使用温度 $0 \sim +40$ 度。
- ◆ 装配和运输过程中注意防静电处理。
- ◆ 整机装配时，勿受重压。
- ◆ 为了达到更好的 EMC 效果，尽可能采取屏蔽线，有条件的在靠近机器端的线上穿上磁环。

Use requirements

Relative humidity 80%.

Storage temperature - 10~+60 .

Operating temperature 0~+40 .

Pay attention to anti-static treatment during assembly and transportation.

Do not bear heavy pressure when assembling the whole machine.

In order to achieve better EMC effect, shielded wire shall be used as far as possible, and it is conditional to be near the machine end. Put a magnetic ring on the wire.