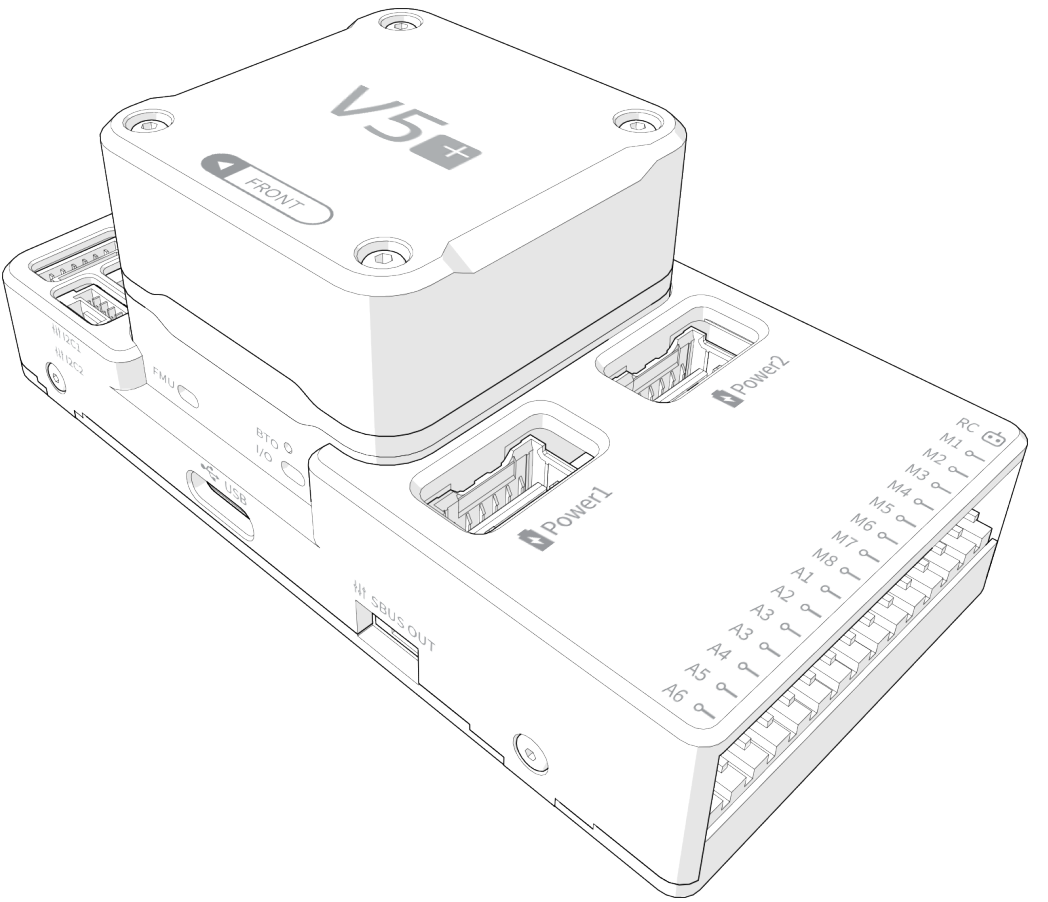
V5+

产品说明书

User Manual

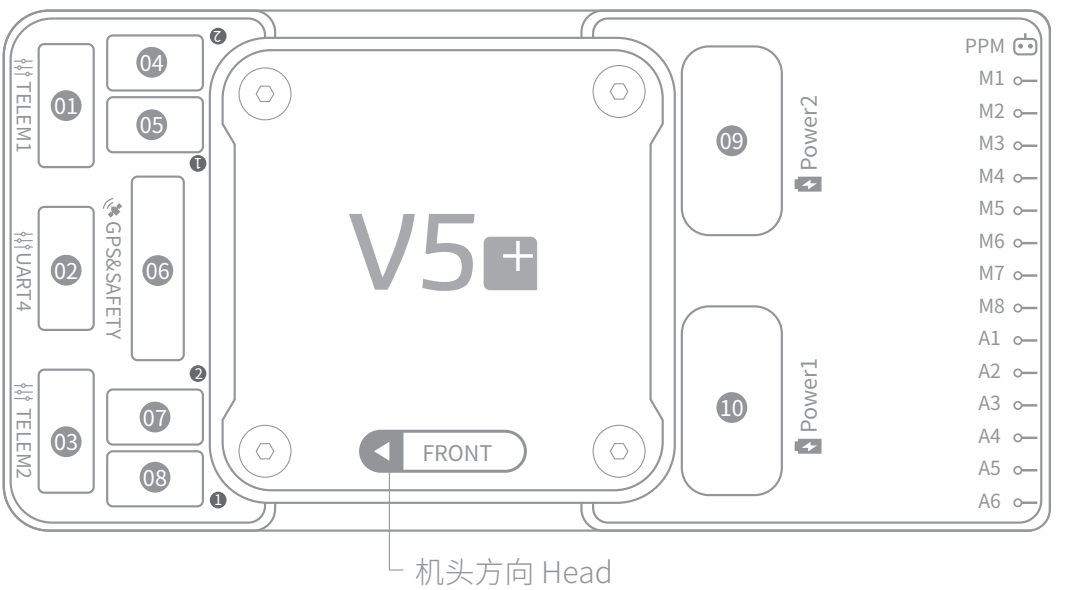


欢迎使用V5+自动驾驶仪
Thanks for using the V5+ autopilot

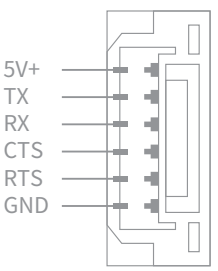
接口定义 Interface definition

V5+ 硬件和接口的设计均采用PX4所制定的标准。可能存在与其它接口定义或者线材不兼容的问题。请仔细阅读接口定义的描述并且使用产品的原装配线（绿色端子接飞控）进行接线，**如果不按照接口定义标定的接线方式接线，因此造成的设备损坏，本公司不予赔偿。**

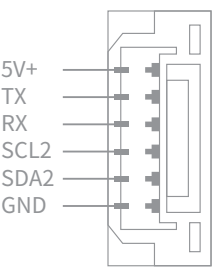
The V5+ hardware and interfaces are designed to the PX4 standards. Please read the description of the interface definition carefully and use the provided cables. Use of other cables that are not compliant with the FMUv5 standards may damage the unit or peripherals. CUAV will not be responsible for damage caused by improper wiring. **Important: The green end of the supplied cables should be connected to the V5+.**



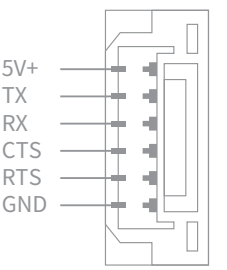
01 TELEM 1



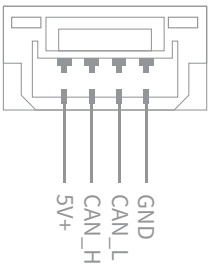
02 UART4



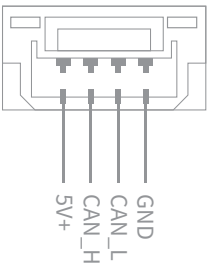
03 TELEM 2



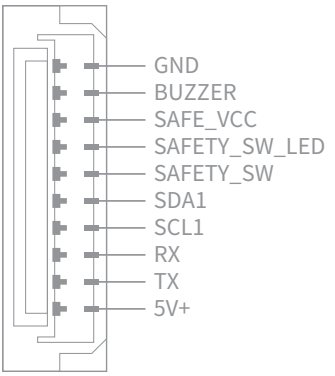
04 CAN 2



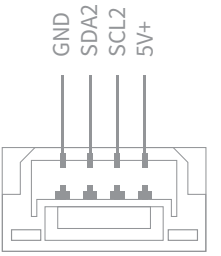
05 CAN 1



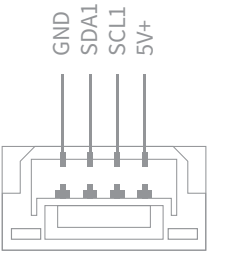
06 GPS&SAFTETY



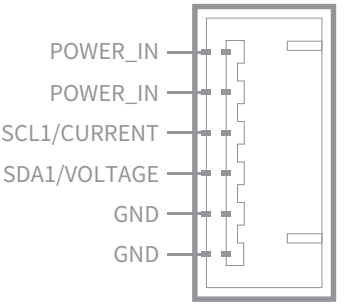
07 I2C 2



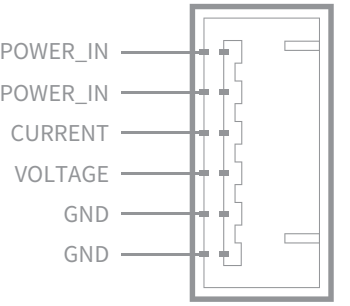
08 I2C 1

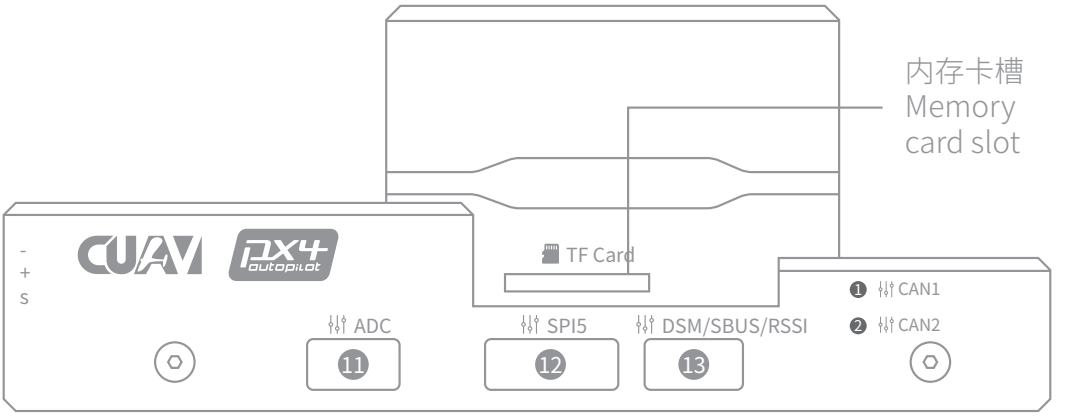


9 POWER 2 (default smart battery)

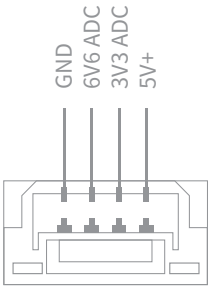


10 POWER 1

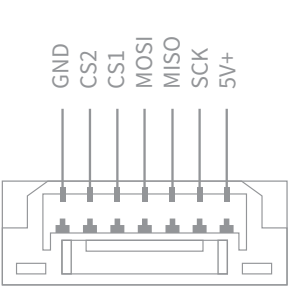




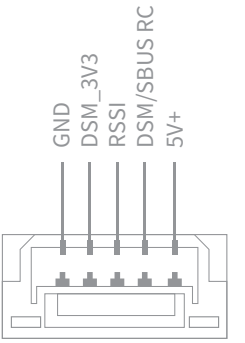
⓫ ADC

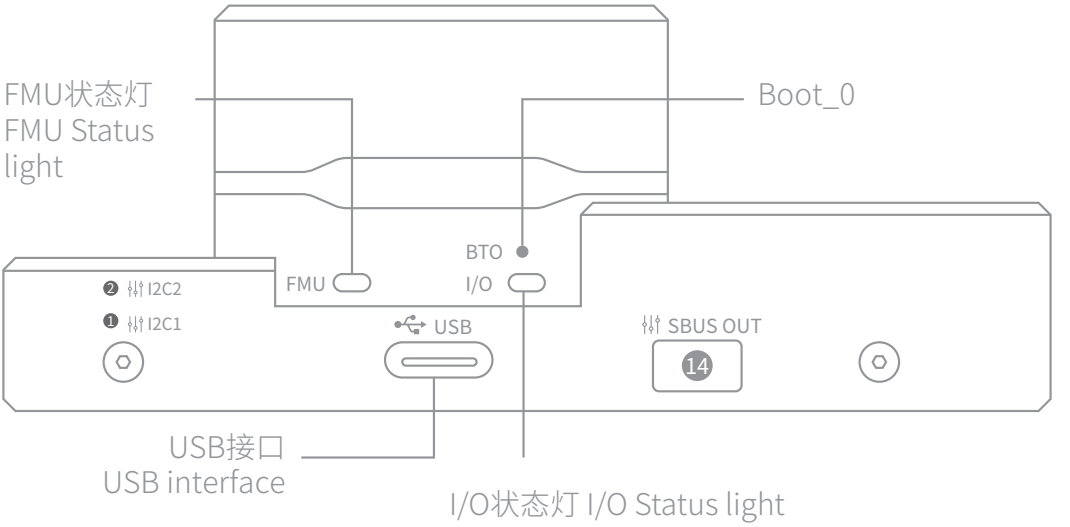


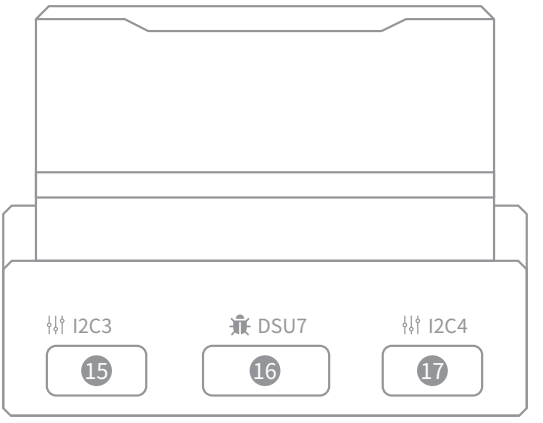
⓬ SPI 5



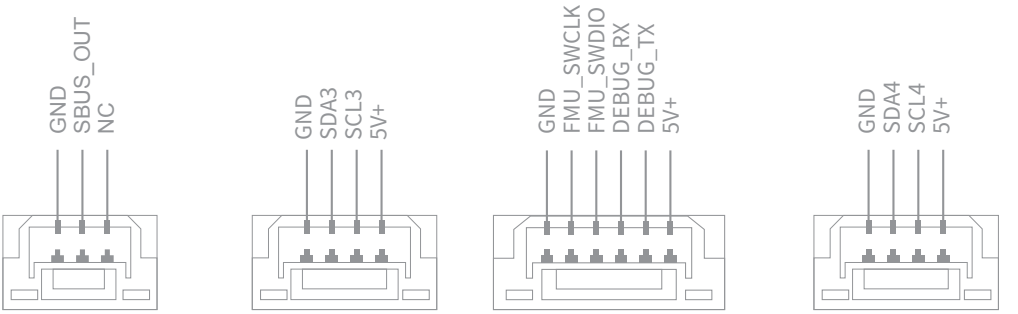
⓭ DSM/SUBS/RSSI

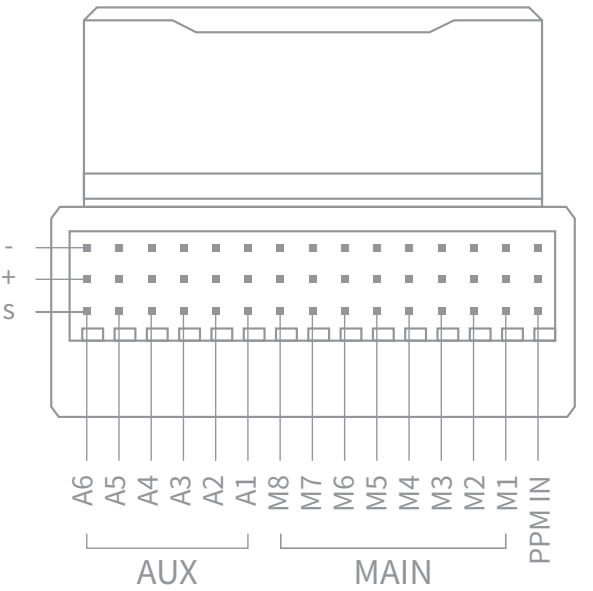






⓮ SBUS OUT ⓯ I2C3 ⓰ DEBUG&UART7 ⓱ I2C4





地面站下载 Download Ground Control Station

QGROUNDCONTROL

https://docs.qgroundcontrol.com/en/getting_started/download_and_install.html

Mission Planner

http://ardupilot.org/planner/docs/mission-planner-installation.html

规格参数 Specifications

硬件参数 Hardware parameter		
主处理器 Main Processor	STM32F765 (32 Bit Arm® Cortex®-M7, 216MHz,2	
协处理器 Coprocessor	STM32F100(32 Bit Arm® Cortex®-M3, 24MHz,8K	
传感器 Sensors		
加速计 Accelerometer	ICM-20602 & ICM-20689 & BMI055	
陀螺仪 Gyroscope	ICM-20602 & ICM-20689 & BMI055	
电子罗盘 Magnetometer	IST8310	
气压计 Barometer	MS5611	
外部接口 External interface		
UART	5	GPS / 数传 / 调试等
I2C	4	罗盘 / 空速计 / 超声波等
SPI	1	外接传感器
CAN	2	GPS / 智能电池等
ADC	2	模拟信号检测
PWM out	14	舵机 / 电调 等信号输出
PWM in	6	编码器 / 热靴反馈等信号输入
PPM in	1	遥控器信号
DSM/SBUS/RSSI	1	遥控器信号/信号强度输入
电源 1 POWER MODEL 1	1	电源输入&电压电流AD检测
电源 2 POWER MODEL 2	1	电源输入&智能电池
安全开关 Safety switch	1	物理解锁允许开关
蜂鸣器 Buzzer	1	声音警告提示
USB-TYPE-C	1	USB供电调试
TF卡槽 TF slot	1	存储日志信息
支持功能 Support function		
固件 Hardware	PX4 / Ardupilot	
机型 Model	多旋翼/固定翼/直升机/VTOL垂直起降/无人船/无人车	
电源 Power	三路电源输入冗余 Three-way power input redu	
尺寸和重量 Size&Weight		
尺寸 Size	85.5×42 ×33 mm	

2MBflash, 512KB RAM)		
KB SRAM)		
	Working environment	
	PM工作电压 PM working voltage	4.5 ~ 5.5 V
	USB工作电压 USB voltage	5V +- 0.25v
	伺服输入电压 Servo Rail Input	0-36v
	工作温度 Operating temperature	-40 ~ 85°c
	GPS / Radio/Debug, etc.	
	Compass / Airspeed meter / Ultrasonic, etc.	
	External sensor	
	GPS / Smart battery, etc.	
	AD signal detection	
	Signal output of Steering Gear / ESC	
	Signal input such as Encoder / Hot shoe feedback	
	Remote control signal	
	Remote control signal/Signal strength input	
	Power input&Voltage and electricity AD detection	
	Power input&Smart battery	
	Unlock switch	
	Buzzer warning	
	USB power supply debugging	
	Store log information	
等 Copter/Plane/Helicopter/VTOL/unmanned vehicle/Rover, etc.		
undancy		
	重量 Weight	91g

配件清单 Parts List

V5+ 飞控 (V5+ Autopilot)	×1
I2C/CAN线 (I2C/CAN cable)	×2
I2C扩展板(I2C expansion board)	×1
ADC6.6线 (ADC6.6 cable)	×1
ADC3.3线 (ADC3.3 cable)	×1
RSSI 线 (RSSI cable)	×1
DSM信号线(DSM signal cable)	×1
SBUS信号线(SBUS signal cable)	×1
Debug线 (Debug cable)	×1
电压电流线(Voltage and current cable)	×1
杜邦线(DuPont cable)	×2
安全开关(Safety switch)	×1
PW-LINK模块(PW-LINK module)	×1
USB-TYPC线(USB-TYPC cable)	×1
16G内存卡(16G memory card)	×1

产品认证 Product certified

产品已通过
CE安全认证

The product has passed CE safety certification

产品已通过
ISO 9001质量管理体系认证

The product has passed ISO 9001 quality management system certification

产品使用注意事项

-请遵守当地法规，勿在禁飞区内飞行。
-飞行高度请低于120m。
-机场8km范围内禁止飞行。
-禁止在人、房屋或车辆上方飞行。
-禁止在雨、强风或雾中飞行。
-禁止在场馆上方飞行。

Product use precautions

- Please comply with local regulations and do not fly in the no-fly zone.
- Flight height should be less than 120m
- Flight is prohibited within 8km from the airport.
- It is forbidden to fly above people, houses or vehicles.
- Do not fly in rain, strong winds or fog.
- It is forbidden to fly above the venue.

相关资料

产品使用教程及固件下载请访问官方文档中心：
http://doc.cuav.net
*注：说明书如有更新，恕不另行通知。

Relevant information

Product tutorials and firmware downloads please visit the official documentation center:
http://doc.cuav.net
*Note: The manual is subject to change without prior notice.

CUAV
雷迅创新