NEQ 3 Pro

User Manual

产品说明书

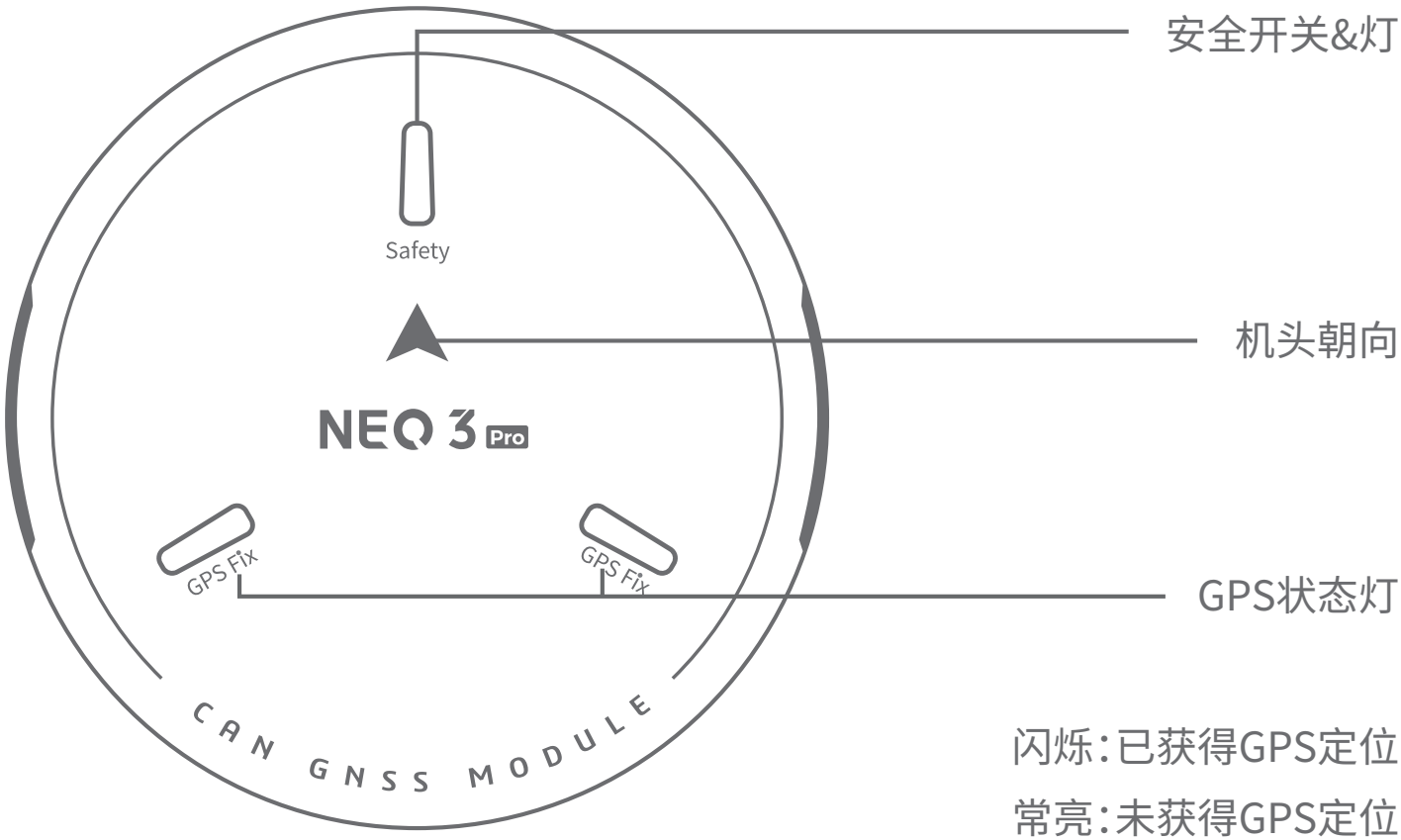
感谢您选择CUAV NEO 3 Pro GNSS导航模块。

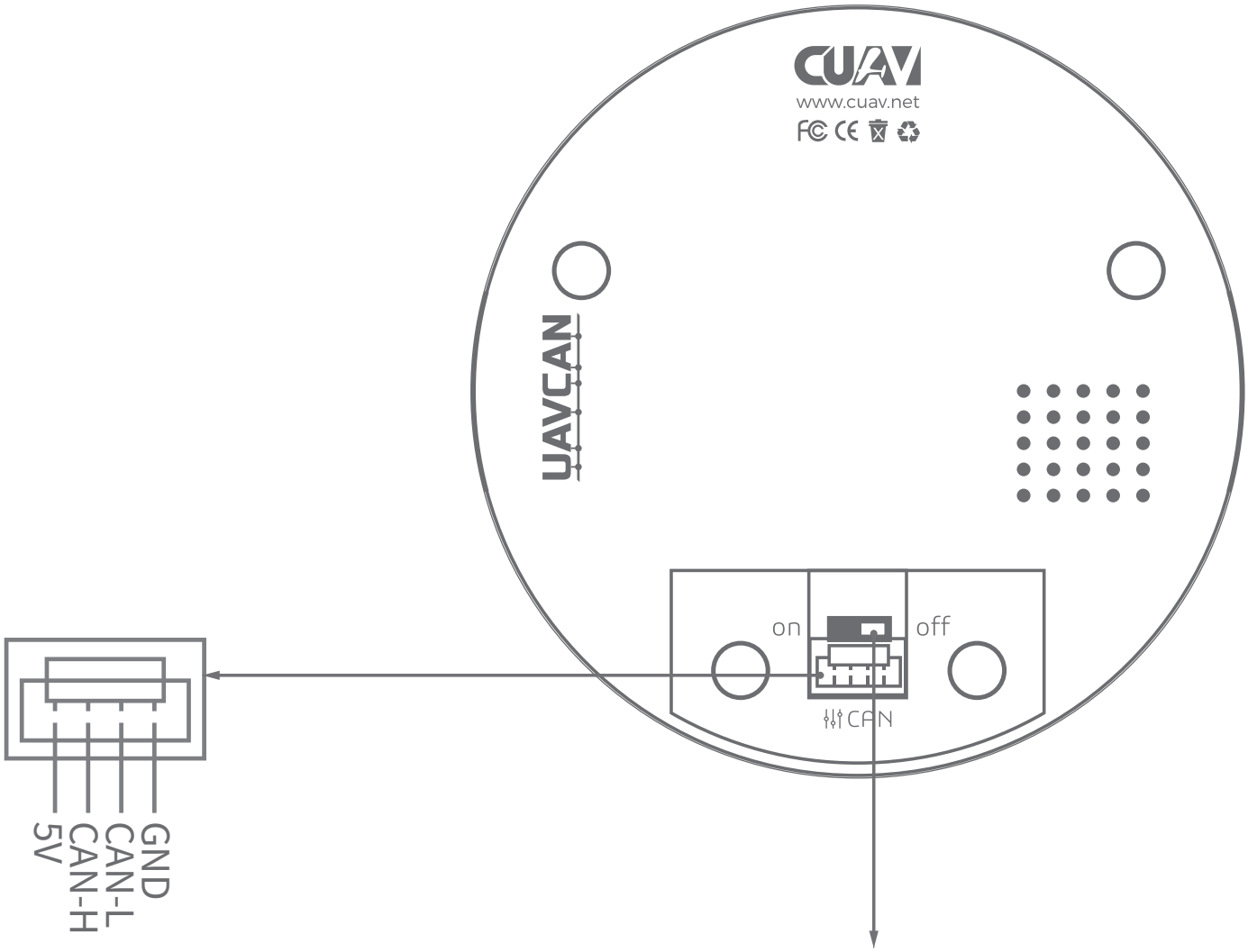
请在使用前仔细阅读本手册，在手册指导下进行操作，不规范的操作可能会导致无法挽回的后果。

*本说明书为印刷品，不保证时效，可能会由于固件或产品更新而进行修改，修改内容不再另行公告，更多内容请访问CUAV文档中心:http://doc.cuav.net

产品功能

GPS定位功能，提供准确的地理定位信息。
电子罗盘功能，提供准确的航向和姿态信息。
状态显示功能，提供环形RGB状态灯显示功能。
警报提醒功能，提供硬件状态的声音提示功能。
安全保护功能，提供物理按键解锁保护功能。



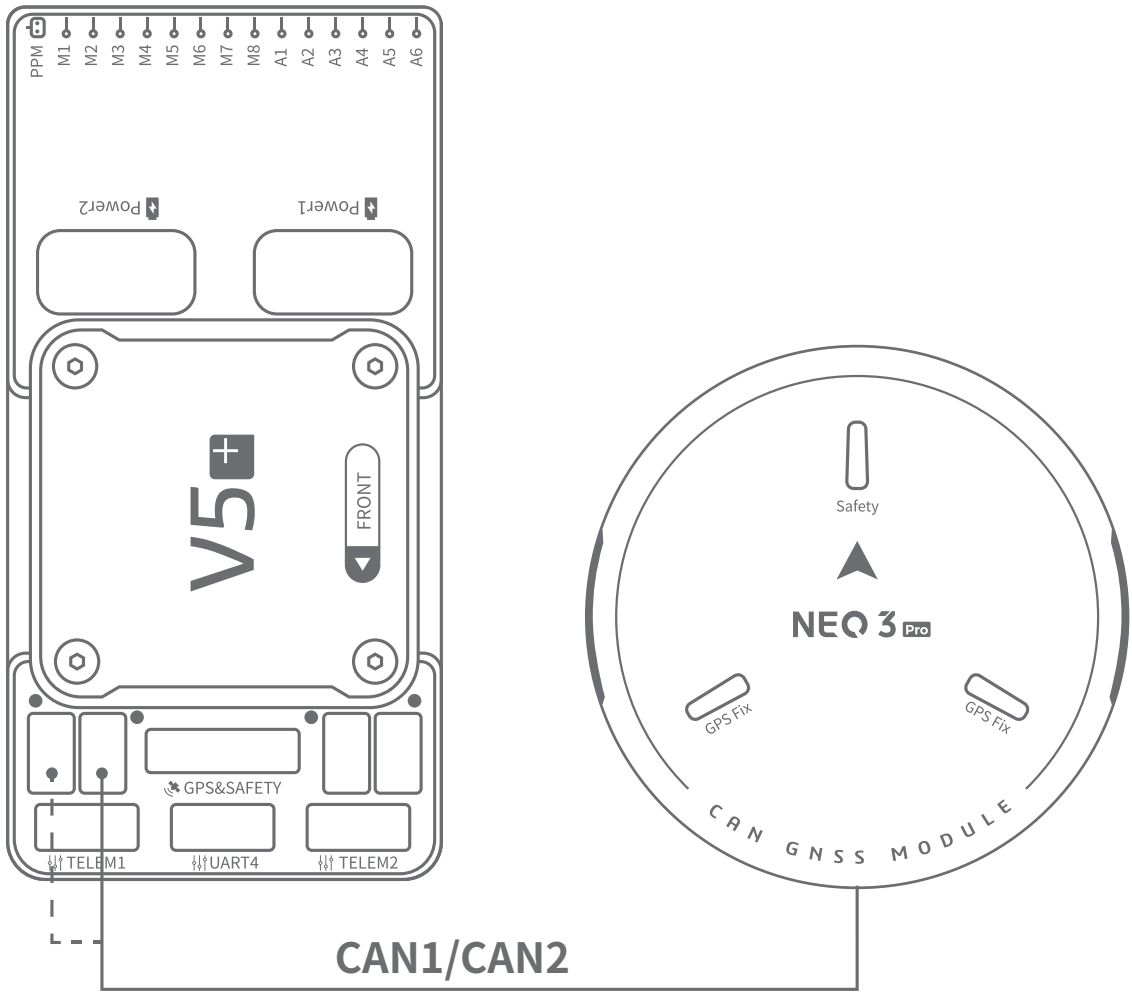


接口定义

CAN 120终端电阻开关
（默认为打开）

连接方法

用CAN连接线将GPS连接至飞控的CAN1或CAN2接口，其它品牌飞控连接至CAN总线接口。



参数配置(ArduPilot固件)

在Missionplanner的全部参数表设置以下参数并在写入后重启：

CAN_P1_DRIVER设置为1.

CAN_P2_DRIVER设置为1.

NTF_LED_TYPES设置为231.

GPS_TYPE设置为9(如果作为GPS1).

CAN_P1_DRIVER	1	
CAN_P2_DRIVER	1	

NTF_LED_TYPES	231

GPS_TYPE	9
GPS_TYPE2	0

类别参数

处理器	STM32F412
传感器	RM3100(磁罗盘)
	MS5611（气压计）
卫星接收器	NEO M9N
RGB状态灯	NCP5623C
蜂鸣器	无源蜂鸣器
安全开关	物理按键
卫星系统	北斗、伽利略、格洛纳斯、GPS
增强系统	SBAS:WAAS,EGNOS,MSAS
	QZSS:L1s(SAIF)
	其它：RTCM3.3
并发器数量	4
工作频段	GPS:L1C/A
	格洛纳斯:L10F
	北斗:B1I
	伽利略:E1B/C

水平精度	2.0M(高至0.7m)
速度精度	0.05m/s
更新速率	25Hz(Max)
捕获速度	冷启动24S
	再次捕获：2S
	辅助启动:2s
最大卫星数量	32颗+
灵敏度	追踪&导航-167dBm
	冷启动-148dBm
	热启动-148dBm
	重新捕获-160dBm
通信协议	UAVCAN
接口类型	GHR-04V-S
支持的飞控类型	CUAV系列飞控、Pixhawk系列
滤波	SAW+LAN+SAW
放电磁/射频干扰	EMI+RFI
固件升级	支持

固件类型	Ardupilot/PX4*（PX4固件尚在适配）
输入电压	5V
环境温度	-10-70°C
尺寸	60*60*16MM
重量	33g

配件清单

NEO3 Pro主机	X1
NEO3 Pro支架	X1
CAN 连接线	X1

产品认证

产品已通过
CE安全认证

雷迅创新已通过
ISO 9001质量管理体系认证

产品已通过
FCC认证

注意事项

-请仔细阅读产品的使用说明书；

-请正确安装支架位置；

-请不要暴力损坏产品；

相关资料

产品使用教程，请访问官方文档中心：http://doc.cuav.net

Thank you for choosing the CUAV NEO 3 Pro GNSS navigation module. Please read this manual carefully before use and operate under the guidance of the manual. Irregular operation may lead to irreparable consequences.

*This manual is printed and does not guarantee the validity period. It may be modified due to firmware or product updates. The modification content will not be announced separately. For more information, please visit CUAV documentation center,：http://doc.cuav.net

Features

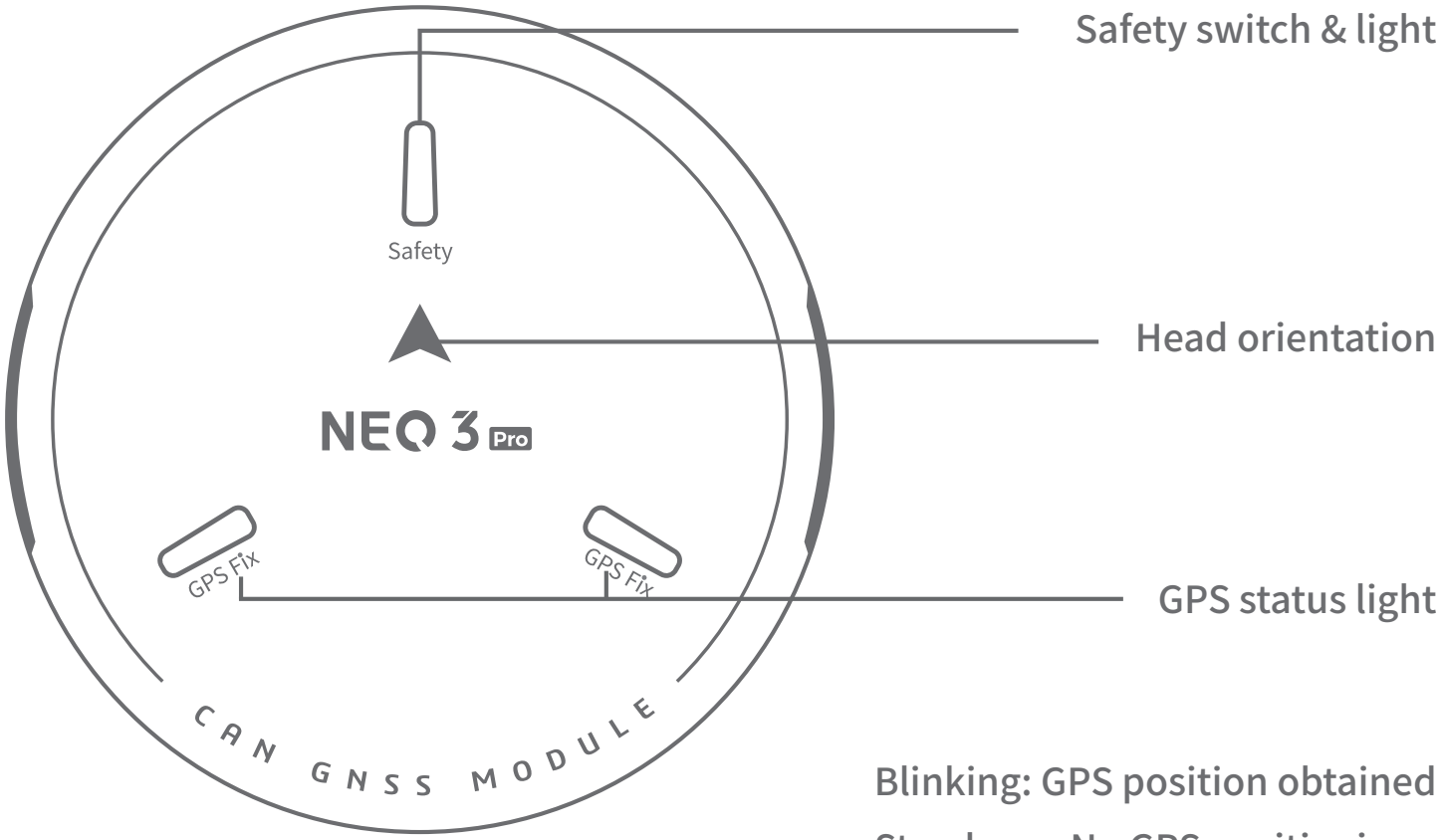
Provides geographic positioning information.

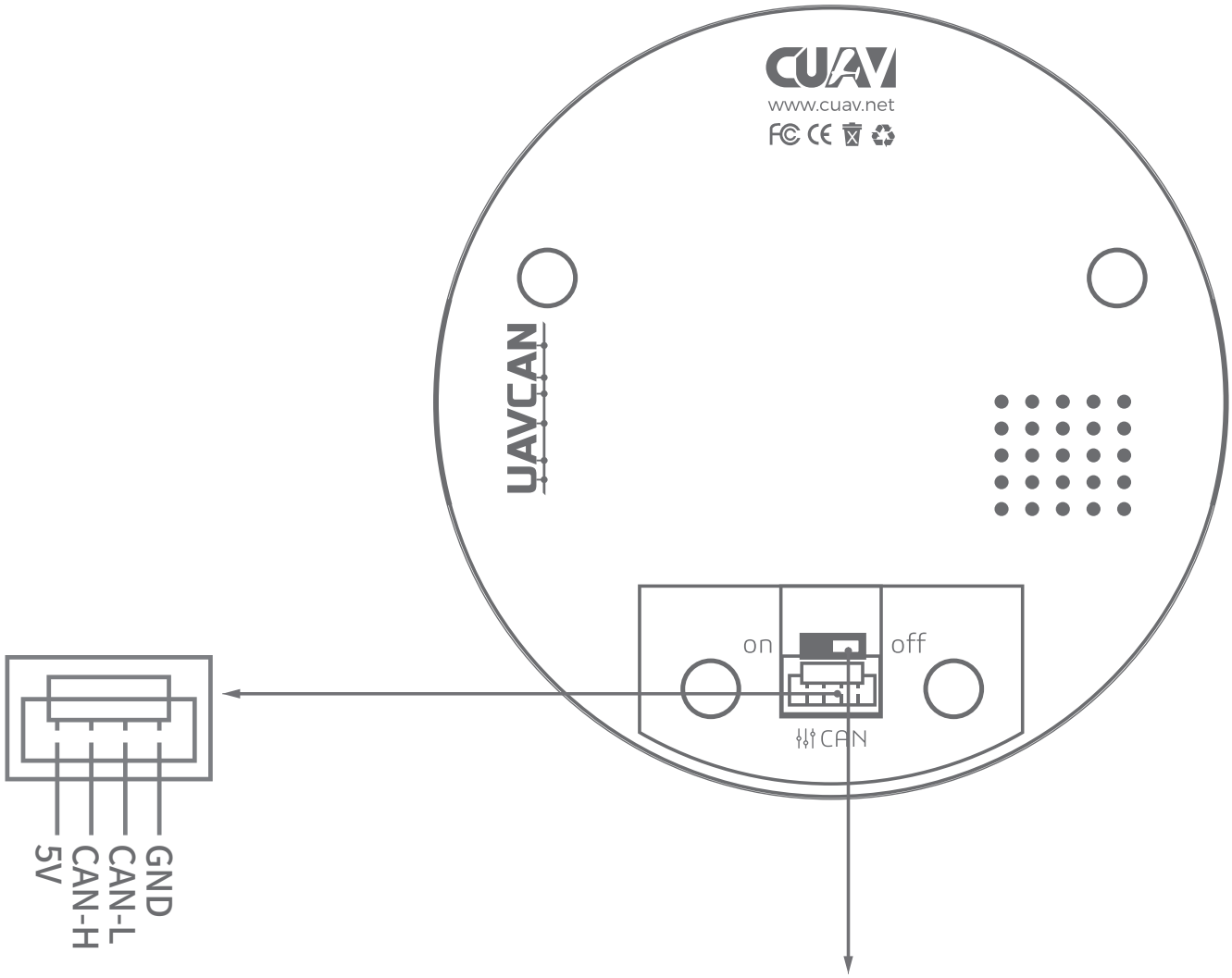
Provides accurate heading and attitude information

Ring RGB status light display

Voice prompt for hardware status

Provides physical key unlock protection.



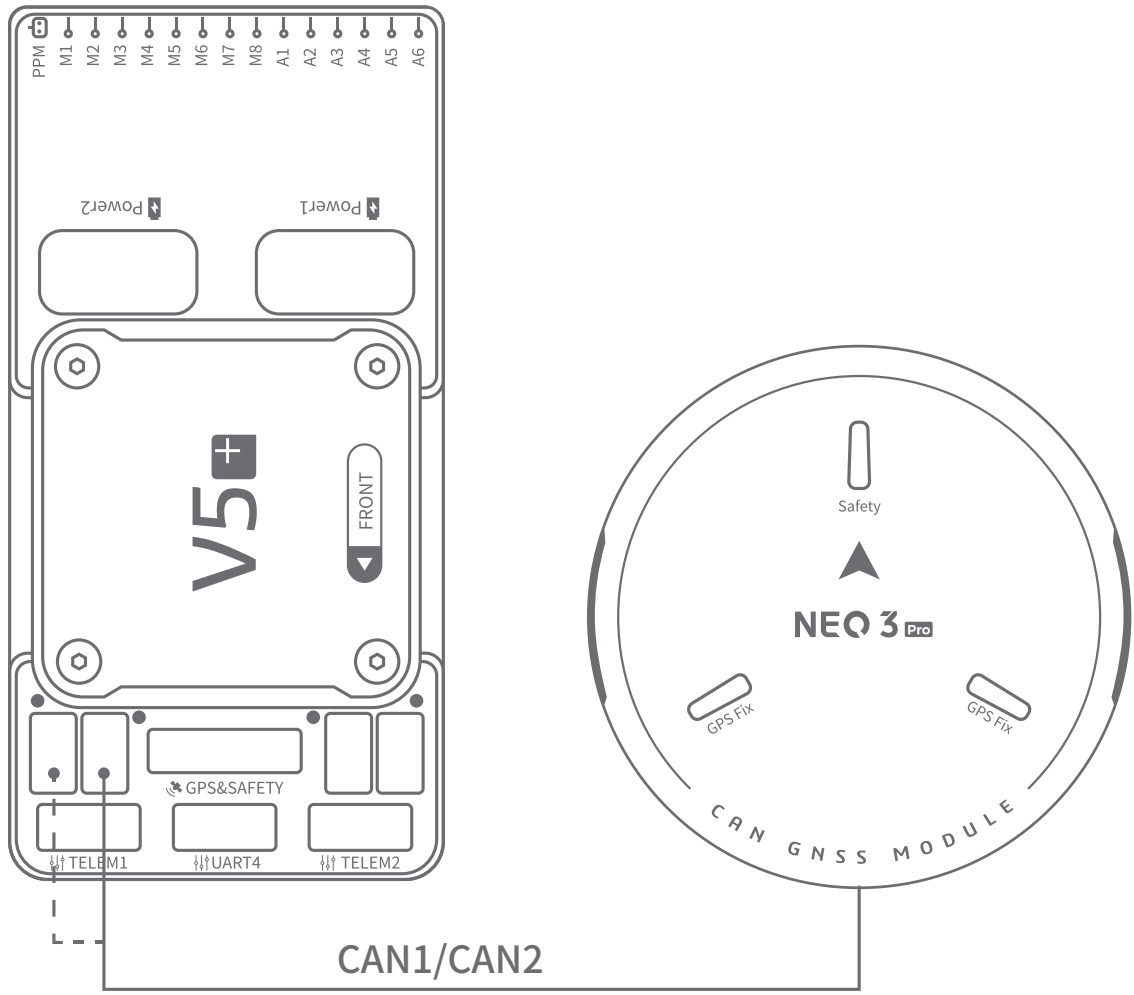


Interface definition

CAN 120R terminal resistance switch(Open by default)

Connection method

Use the CAN cable to connect the GPS to the CAN1 or CAN2 interface of the flight control, other The brand flight control is connected to the CAN bus interface.



Parameter configuration (ArduPilot firmware)

Set the following parameters in all parameter tables of the Missionplanner and restart after writing:

Set CAN_P1_DRIVER to 1.

Set CAN_P2_DRIVER to 1.

Set NTF_LED_TYPES to 231.

Set GPS_TYPE to 9 (if it is GPS1).

CAN_P1_DRIVER	1	
CAN_P2_DRIVER	1	

NTF_LED_TYPES	231

GPS_TYPE	9
GPS_TYPE2	0

Specifications

Processor	STM32F412
Sensor	RM3100(Compass)
	MS5611 (Barometer)
GNSS receiver	NEO M9N
RGB driver	NCP5623C
Buzzer	Passive buzzer
Safety switch	Physical button
GNSS	Beidou、Galileo、GLONASS、GPS
GNSS Augmentation	SBAS:WAAS,EGNOS,MSAS
System	QZSS:L1s(SAIF)
	Other：RTCM3.3
Number of concurrent	4
GNSS	
Frequency band	GPS:L1C/A
	GLONASS:L10F
	Beidou:B1I
	Galileo:E1B/C

Horizontal accuracySpeed	2.0M
accuracy	0.05m/s
Nav. update rate	25Hz(Max)
Acquisition	Cold start：24S
	Hot start：2S
	Aided start:2s
Number of satellites(MAX)	32+
Sensitivity	Tracking and nav-167dBm
	Cold start Hot star-148dBm
	Reacquisition -160dBm
Protocol	UAVCAN
Port Type	GHR-04V-S
Supported flight controller	CUAV series, Pixahwk series
Wave filtering	SAW+LAN+SAW
Anti-Electromagnetic/radio	EMI+RFI
frequency interference	
Upgrade firmware	Support
Firmware type	Ardupilot/PX4* (PX4 are is still being

	adapted)
Operating Voltage	5V
Operating temperature	-10-70°C
Size	60*60*16MM
Weight	33g

Packing list

NEO3 Pro module	X1
NEO3 Pro stand	X1
CAN cable	X1

Product certification

Product has passed CE safety certification

CUAV has passed ISO 9001 quality management system certification

Product has passed FCC certification

Notes

-Please read the manual before use;

-Please install the bracket position correctly;

-Please do not damage the product violently;

Related information

Visit the official documentation center for more turorial:

http://doc.cuav.net

www.cuav.net