FLYCOLOR®

多旋翼飞行器
无刷电子调速器说明书
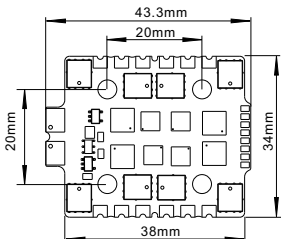
猛禽5 G2 Mini(AM32) 4合1

Raptor5 G2 mini AM32

感谢您使用本产品！本产品功率强大，错误的使用可能导致人身伤害和设备损坏，强烈建议您在使用设备前仔细阅读本说明书并保存，严格遵守规定的操作程序。我们不承担因使用本产品或擅自对产品进行改造所引起的任何责任，包括但不限于对附带损失或间接损失的赔偿责任。我们有权在不经通知的情况下变更产品的设计、外观、性能及使用要求。

01 产品特点

● ARM 32-bit Cortex 核心MCU STM32G0系列，工作频率高达64MHz;
● ESC使用AM32固件，油门线性更加顺滑，响应速度更快;
● 支持可变PWM频率;
● 支持正弦启动模式，专为驱动大电机平稳提速而设计;
● 支持普通PWM油门模式（1-2ms）的脉宽输入;
● 支持所有Dshot数字信号，支持双向Dshot;
● 小型化、轻量化的设计，更佳的走线和元件布局;
● 20x20的安装孔，满足多元化机型安装需求;
● 顶部预留备用焊盘，以备插座因意外损坏的不时之需;
● 34mm极致的宽度，能减少因摔机而损坏的几率;
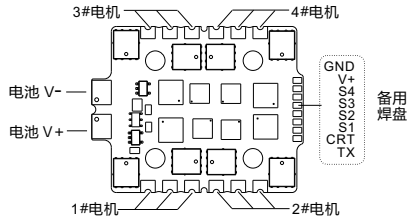● 内置电流计、Vbat 电池电压输出;
● 支持更大功率负载，适合竞速级多旋翼的暴力飞行。

02 规格参数

●型号:	Raptor5 G2 Mini(AM32)
●持续电流:	45A～60A (以具体型号为准)
●BEC:	No BEC
●锂电池节数:	3-6S
●重量:	13.5g
●尺寸(供参考):	43.3x34x6.3mm
●安装孔:	20x20mm,M3
●调参软件:	Am32 Configurator
●电调固件:	AM32_FLYCOLOR_G071
●典型应用:	170-450 多旋翼

如需查看或更改可编程选项及参数值，请使用AM32 Configurator

03 端口示意图

正面

3#电机   4#电机

电池 V-
电池 V+

GND
V+
S4
S3
S2
S1
CRT
TX
备用焊盘

1#电机   2#电机

反面

GND — GND
电池电压输出 — V+
4#电调信号 — S4
3#电调信号 — S3
2#电调信号 — S2
1#电调信号 — S1
电流检测 — CRT
遥控TX — TX
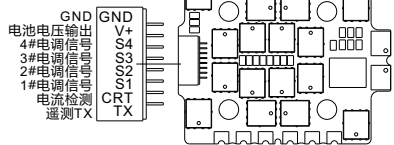
04 零件清单

●猛禽5 G2 Mini 4in1	1x
●硅胶减震柱	4x
●O型橡胶圈	4x
●XT60/电源线	1x
●电调/飞控连接线	1x
●电解电容	1x
●电解电容安装板	1x
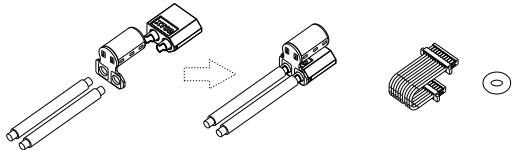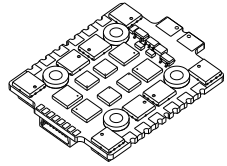
*图片仅供参考，产品以实物为准

● 请使用随产品附带的配件进行安装，请保持产品器件底部与机架之间有足够的安全距离，避免短路造成产品损坏;
● 为加强更滤波，建议将电解电容焊接至电容安装板，并焊接在电源正负极;
● 请使用随产品附带的电调/飞控连接线对接，如有更改，连接前务必确认您的连接线线序正确，避免造成产品损坏。

05 注意事项

● 每次上电会自动检测输入的油门信号,然后执行相应的油门模式;
● 首次使用无刷电调或更换遥控设备后需要进行油门行程校准;Dshot模式时，将不再需要校准油门;
● 请勿刷写其它固件，以免损坏电调;
● VBAT 为电池电压输出，如果连接至其它设备，务必确认工作电压是否匹配;
● CRT.(Current)为电流检测口，可连接至飞控对应电流检测口;
● 无论任何时候都要注意极性，供电之前一定要反复检查;
● 在插拔或者做任何连接时，请关闭电源;
● 请不要超出ESC工作电流、电压范围使用;
● 所有焊接要求良好的焊接技术，任何时候都需要避免因焊接而造成元件或线材之间短路;
● 可以做一些减震措施尽量避免震动;
● 请确保所有电线和连接部件绝缘良好，避免短路造成产品损坏;
● 请避免在潮湿、高温等恶劣环境下使用产品，避免造成产品损坏;
● 如需更多信息，请联系售后或者技术支持。
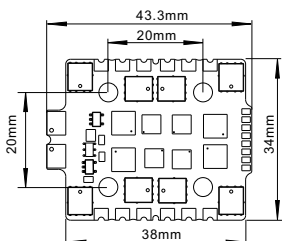
Raptor5 G2 mini
AM32

ATTENTION

Thank you for using our product. Any Improper operation may cause personal injury damage to the product and related equipments. This high power system for RC model can be dangerous ,we strongly recommend reading the user manual carefully and completely. We will not assume any responsibility for any losses caused by unauthorized modifications to our product. We have the right to change the design, appearance, performance and usage requirements of the product without notice.

01 Main features

- ARM 32-bit Cortex MCU STM32G0, frequency up to 64 MHZ.
- AM32 firmware makes the throttle linearity smoother and the response faster.
- Variable PWM frequency is supported.
- Sinusoidal startup mode is supported, which is designed to get larger motors up to speed.
- Supports regular PWM 1-2ms pulse width input.
- All Dshot signals are supported, and supports Bi-directional Dshot.
- Miniaturized and lightweight design, better routing and component layout.
- 20x20 mounting holes to meet the installation requirements of diversified frames.
- Spare solder pads are reserved at the top and can be used if the socket is damaged unexpectedly.
- A width of 34mm offers extreme compactness, which can reduce the likelihood of damage from crashes.
- Built-in current sensor and VBAT output.
- Supports higher power load, more suitable for violent flight of racing drone.
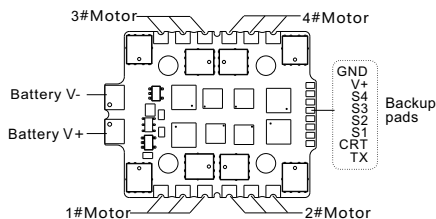
02 Specification

●Model:	Raptor5 G2 Mini(AM32)
●Con. Current:	45A~60A (Subject to specific model)
●BEC:	No BEC
●LiPo cells:	3-6S
●Weight:	13.5g
●Size:	43.3x34x6.3mm
●Mounting:	20x20mm,M3
●Configurator:	AM32 Configurator
●Firmware :	AM32_FLYCOLOR_G071
●Application:	170-450 Multi

43.3mm
20mm
20mm
34mm
38mm

ATTENTION

To view or change programmable items and parameter values, Please use AM32 Configurator .

03 Connect diagram

TOP

3#Motor   4#Motor
Battery V-
Battery V+

GND
V+
S4
S3
S2
S1
CRT
TX
Backup pads

1#Motor   2#Motor

BOTTOM

GND — GND
Vbat Output — V+
4# signal — S4
3# signal — S3
2# signal — S2
1# signal — S1
Current meter — CRT
Telemetry — TX
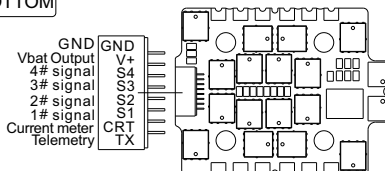
04 Part list

● Raptor5 G2 Mini 4in1	1x
● Silicone vibration absorber	4x
● O-Ring	4x
● Power cable / XT60	1x
● FC/ESC connecting wire	1x
● Low ESR capacitor	1x
●Capacitor Mounting Board	1x
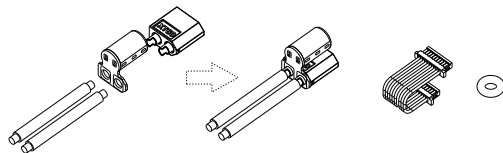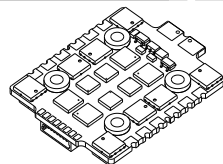
*All pictures are for reference only

ATTENTION

- Please use the parts supplied with the product for installation. Please ensure enough safety space between the ESC& Drone frames, as short circuit will damage the product.
- To enhance filtering, it is recommended to solder the capacitor to the capacitor mounting board and connect it across the positive and negative terminals of the power supply.
- Please use the wire supplied with the product for connecting. confirm the pinout and sequences between flight controller and ESC before applying power. Modify as necessary.

05 Attention

- ESC will automatically detect the input throttle signals every time as soon as it powered on, and then execute the corresponding signal-receiving mode.
- User need to calibrate the throttle range when starting to use a new ESC or another transmitter. When the input signal is Dshot, throttle calibration is disabled.
- Please don't flash any other firmware.
- VBAT is battery output, make sure your device operating voltage is matched if you want to use VBAT.
- CRT.(Current)port can be connect to the port on F.C for current meter.
- Observe polarity at all times. Double check before applying power.
- Power off before unplugging ,plugging in or making any connections.
- Please do not exceed the current & voltage range.
- All welding requires good welding technology, short circuit between the element or the wire should be avoided at any time.
- Do everything you can to prevent vibrations.
- Please ensure that all wires and connecting parts are well insulated to avoid product damage due to short circuit.
- Never use this product in harsh environments such as humidity, high temperature, and so on to avoid product damage.
- Please contact sales or technical support for more information.