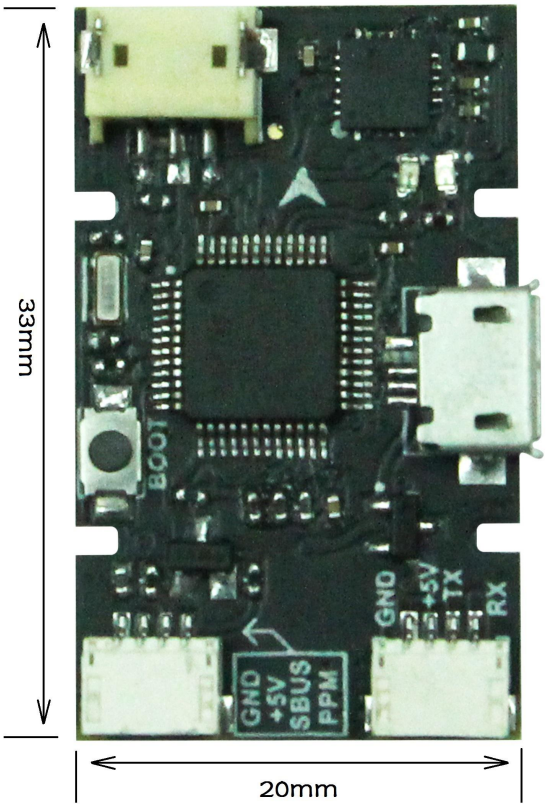
NZ32 Brushed Motor Flight Controller

User Manual **Version 1.0-60720E**

Thanks for purchasing our NZ32 Brushed Motor Flight Controller. This FC use NAZE32 6DOF hardware, software compatibility with ALIENFLIGHTF1 or NAZE in CleanFlight configurator. The FC use 3oZ 4 lays high quality PCB, support quadrocopter or hexrcopter, each brushed motor continuous working current up to 6A, onboard 5V 400mA switching power BEC output for RX receiver or other equipment.

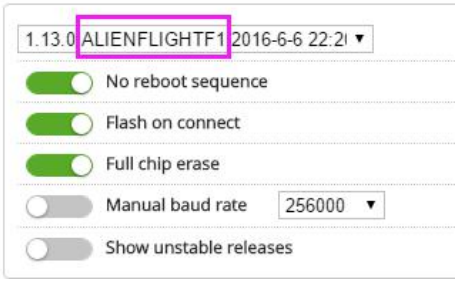


weight 4g 重量4g

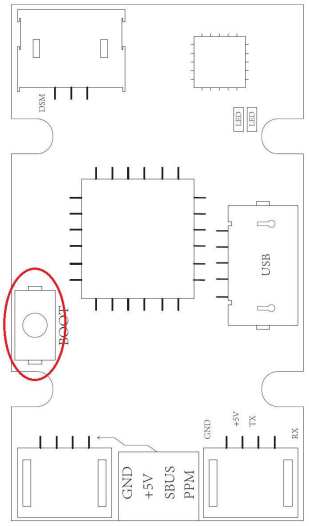
Hardware Base	**NZ32 flight controller use MPU6050 and STM32F103CB micro controller (128Kbytes flash memory, 20Kbytes SRAM, ARM 72Mhz Cortex-M3)**
Battery Input	**1s lipo (4.35V maximum)**
Onboard Brushed ESC	**Total 6 ways, support quadrocopter or hexrcopter, 6A maximum each way**
Onboard 5V BEC	**Convert 1s battery input to 5V for RX receiver or other equipment , current output 400mA maximum, this 5V/400mA BEC can working reliable when input voltage from 1.8V to 4.35V**

Flash Firmware to NZ32 Brushed Motor FC

As show there is a button in NZ32 Brushed Motor FC, press this button then power on the FC will trigger STM32 MCU into bootloader mode. Actually this button connect to BOOT0 pin in STM32, press this button connect the BOOT0 pin of STM32 to 3.3V. The firmware please select "ALIENFLIGHTF1" in CleanFlight configurator as following.



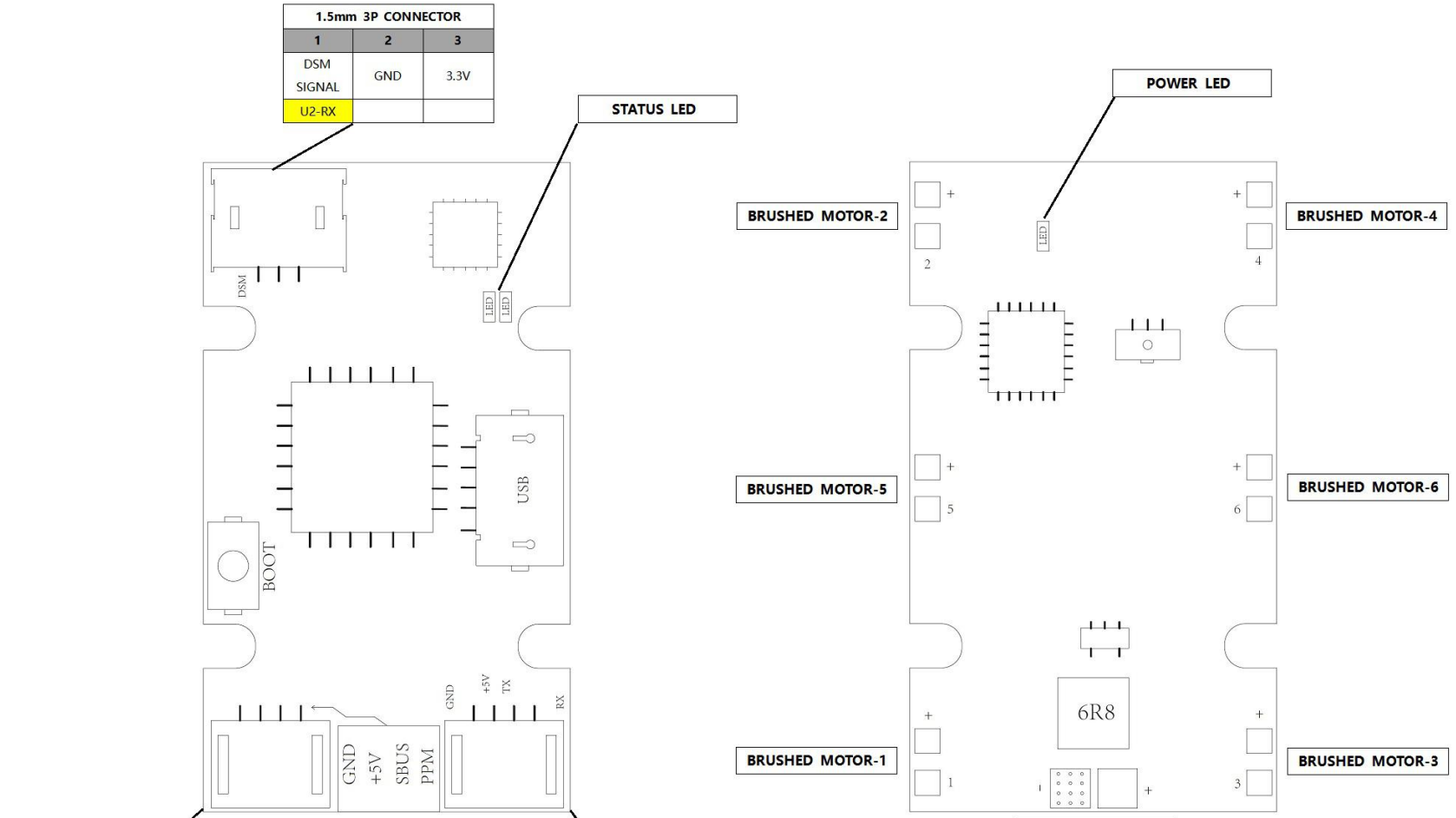
User also can select "NAZE" firmware in CleanFlight configurator, but when use "NAZE" firmware, user need change the register "*motor_pwm_rate*" from "400" to "32000" in CLI page use command "*set motor_pwm_rate = 32000*", then sent command "*save*" to save the change of FC. If user don't change this register when power on the brushed motor will st art running and can't stop. We don't recommend use "NAZE" firmware because it's too complex.



NZ32 Brushed Motor FC Receiver Connection Preview

Receiver Type	OSD or BLUETOOTH	Note
PPM	√ (USART 1)	---
S.BUS (USART 2)	√ (USART 1)	**FC include inverter onboard, user only need connect S.BUS signal to the socket.**
DSM Satellite (USART 2)	√ (USART 1)	**When us DSM Satellite, FC can't trigger satellite into binding mode, user need bind the satellite before connect it to FC.**

Hardware Connection Diagram



FC include S.BUS inverter onboard