AIOF3_BRUSHED Flight Control Board Built-in OSD Flyky Receiver

The AIOF3_BRUSHED flight controller is a Highly integrated F3 flight controller both for Indoor FPV flight and outdoor FPV.

The flight controller integrate OSD and Receiver, run Betaflight firmware. It's amazing, you only just get ready your VTX and camera, it's simple to DIY a whole FPV racing Quadcopter with brushed motor .

1. Specification:

Brand Name: Eachine

Size: 38mm*19mm

Weight: 3g
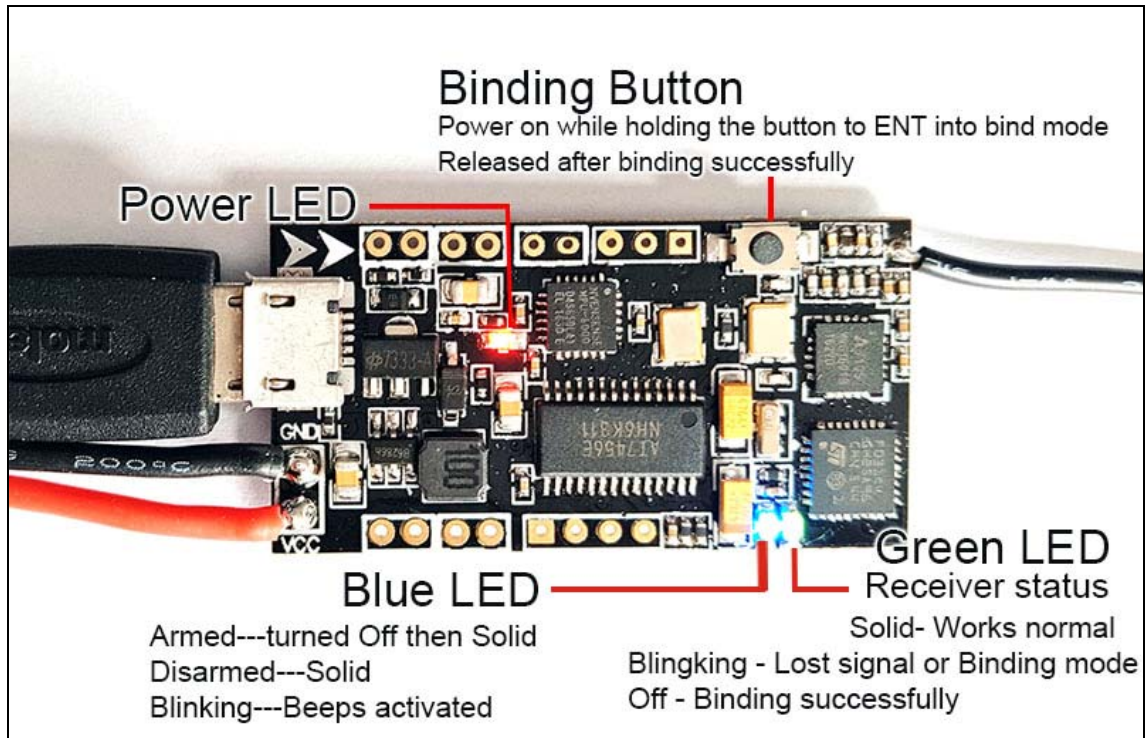
Processor: STM32 F303 MCU

Sensor: SPI Sensor MPU6000
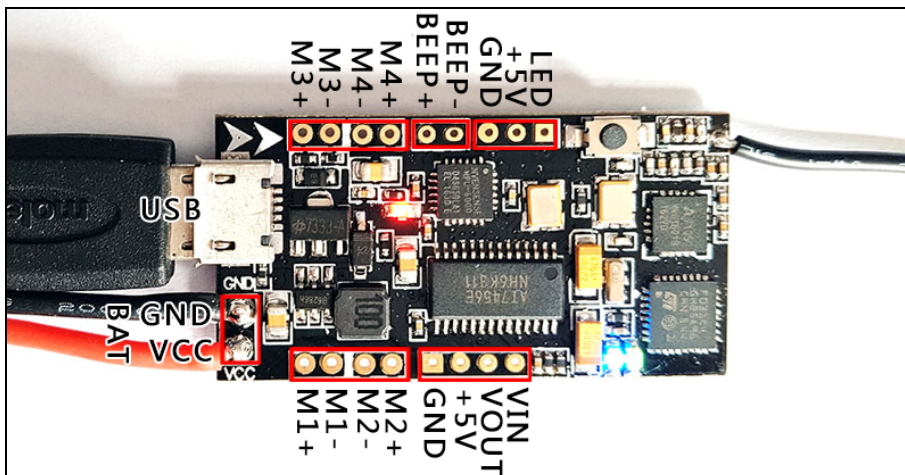
Target: Omnibus

Firmware Version: Betaflight 3.0.1
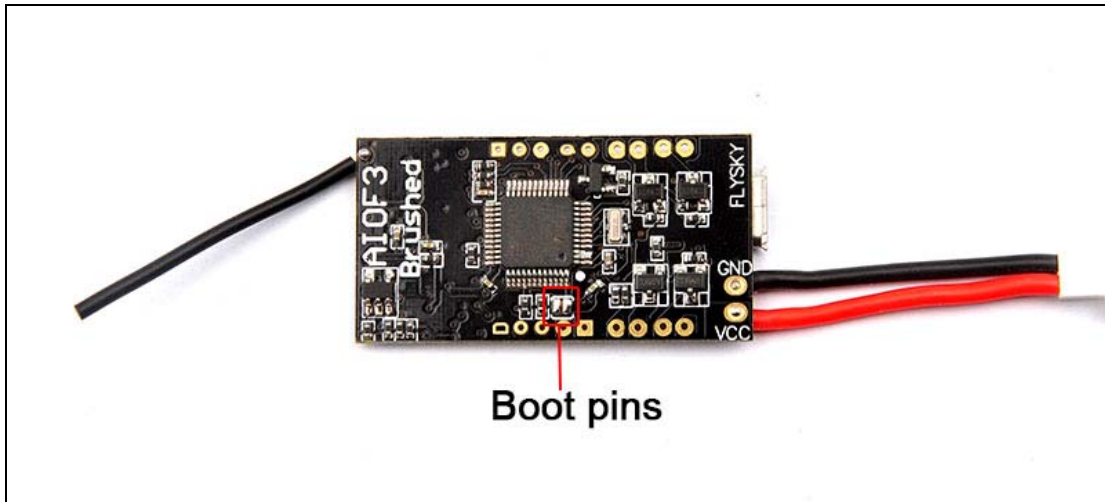
Receiver: Flysky compatible 8CH PPM receiver

Protocol: AFHDS-2A

2. Connector and LED Definition:
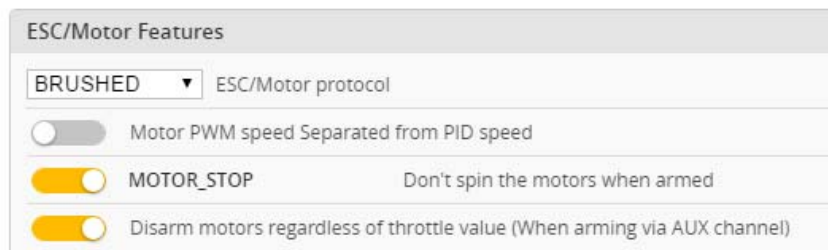

3. Installation and Connection diagram：

Boot pins

4. Betaflight configuration：

All the configuration was set up before shipping, if you need to flash firmware and select "Full chip erase", you should reconfigure for the AIOF3 Flight controller board according to the bellowing diagram.

> ⚠️ After you flashed firmware and do the "Full chip erase" option, Please remove the propeller from the motor and plug your battery ,otherwise it maybe can't connected to the Betaflight configurator.

Reconfigure steps:

Go to Configure Tab and set ESC/Motor protocol to BRUSHED

This step is in order to avoid motor auto-spinning when connect the battery

1. Ports and receiver mode sets like the bellowing diagram: Set Receiver mode RX_PPM , Ignore the Serial Receiver Provider

Receiver Mode

⦿ RX_PPM — PPM RX input

◯ RX_SERIAL — Serial-based receiver (SPEKSAT, SBUS, SUMD)

◯ RX_PARALLEL_PWM — PWM RX input (one wire per channel)
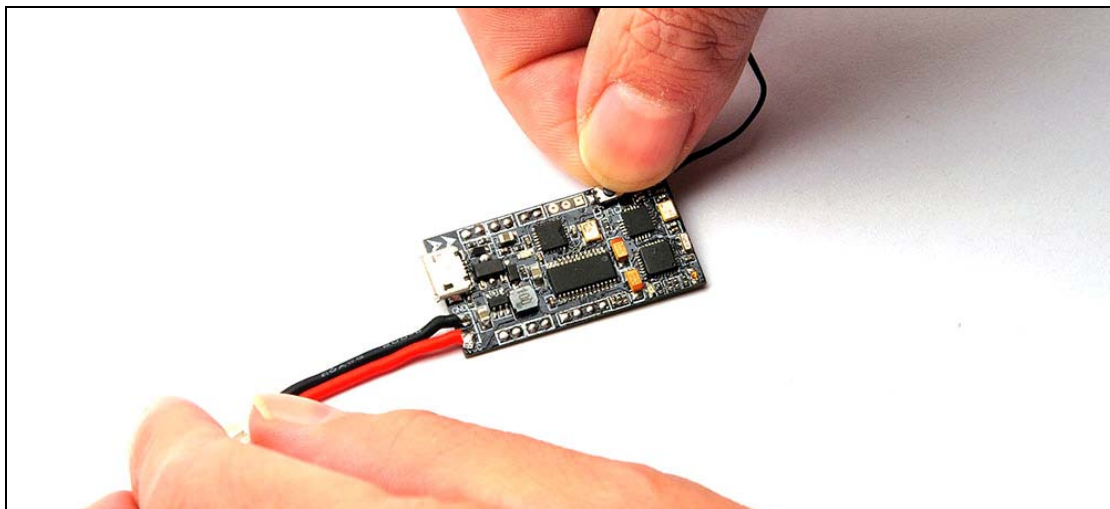
◯ RX_MSP — MSP RX input (control via MSP port)

Serial Receiver Provider

Note: Remember to configure a Serial Port (via Ports tab) and choose a Serial Receiver Provider when using RX_SERIAL feature.

SPEKTRUM1024
SPEKTRUM2048
SBUS
SUMD

2. Binding Procedure:

a)Power for the AIOF3_Brushed board while holding the Bind button, the Green LED will getting to be blinking, this means the AIOF3_Brushed is in binding mode, then release the button.

b)Please Ensure the RX setup of your Flysky Radio is in AFHDS 2A Mode. Then Turn on your radio while holding the binding button to Binding with the AIOF3_Brushed board. The Green LED will turning off, this indicates binding successfully. Reconnect the battery to the AIOF3_Brushed board after Binding successfully.

3. The default receiver channel map is AETR1234, please ensure your transmitter is matched with it, otherwise it can't be armed.

4. The Default Arm/Disarm switch is AUX1(Channel 5),and you can also customize it with Betaflight Configurator.

5. Set Arm/Disarm switch for your Flysky Radio: Move to the Aux.channels interface, Set "SWA" or "SWB" switch etc. for Ch5 to ARM/DISARM the motor.

6. Toggle the AUX1 Switch and the blue LED on the board will first turning off and get be solid soon, this indicate the motor was armed. Be careful and enjoy your flight now!

5. OSD configuration：

Connect the AIOF3 board to the computer , open Betaflight Configurator , move to the OSD option

Craft Name set in configuration option