Eachine Beecore V2.0 Brushed Flight Control Board Frsky version Manual

Eachine Beecore V2.0 brushed Flight control board is a new upgraded version which integrated Betaflight OSD and MPU6000 at SPI bus. The new version also integrated 2.4G receiver with 3 versions to choose(Frsky/Flysky/DSMX). It's the best flight controller for Indoor Brushed quadcopter.

1. Specification:
   CPU: STM32F303CCT6
   Six-Axis: MPU6000
   ESC: All FETs are rated at 10A maximum
   Size: 26mm x 26mm, fully compatible with the Inductrix and Eachine E010/E010S frame and mounting pattern
   Firmware version: BETAFLIGHTF 3.2.0
   Firmware Target: Omnibus
   OSD: Built-in BetaFlight OSD (STM32 controls OSD chip over SPI in DMA mode)
   Receiver Option: Frsky D8 protocol (SBUS), Flysky AFHDS-2A protocol (IBUS), Spektrum DSM2/DSMX protocol
   Weight: 3.2g
   Work voltage: 1S Lipo 3.5v~4.35v

2. Connection and LED

3. Camera connection
4. Mixer type and ESC/Motor protocol

Please pay attention to the motor sequence of Inductrix main board, it's different from BEECORE. Install the motor according to the diagram above.

5. Receiver configuration

Ports and receiver mode sets like the bellowing diagram: First Enable Seria_RX for uart3 and Set Receiver mode to "RX_SERIAL", Select SBUS signal in Betaflight configurator. And the default channel map is "TAER1234", please check your RC transmitter channel map, make sure they are matched, otherwise it will not armed. The Aux5 is set to RSSI Channel.

6. Binding procedure

a) Press and holding the bind button, then power on for the BEECORE V2.0, the LED Combo (2 Red and 2 White) will getting to be solid, this means the BEECORE V2.0 is in binding mode, and then release the bind button.
b) Turn on your Frsky Radio and select D8 mode for the Receiver. Then Go to the Receiver [Bind] option, and ENT to Binding with the BEECORE V2.0. The LED Combo (2 Red and 2 White) will turning off, this indicate binding was successful. Reconnect the battery to the BEECORE V2.0 after Binding successfully.

6. Firmware update

1. Install latest STM32 Virtual COM Port Driver http://www.st.com/web/en/catalog/tools/PF257938
2. Install STM BOOTLOAD Driver (STM Device in DFU MODE)
3. Open Betaflight configurator and choose firmware target “OMNIBUS”, then select the firmware version.
4. There are 2 ways to get in DFU Mode: 1). solder the boot pad and then plug USB to computer 2). loading betaflight firmware and hit “flash”, then it will getting into DFU Mode automatically.
5. Open Zadig tools to replace the drivers from STM32 Bootloader to WINUSB Driver.
6. Reconnect the flight controller to the computer after replace driver done, and open Betaflight configurator, loading firmware and flash.