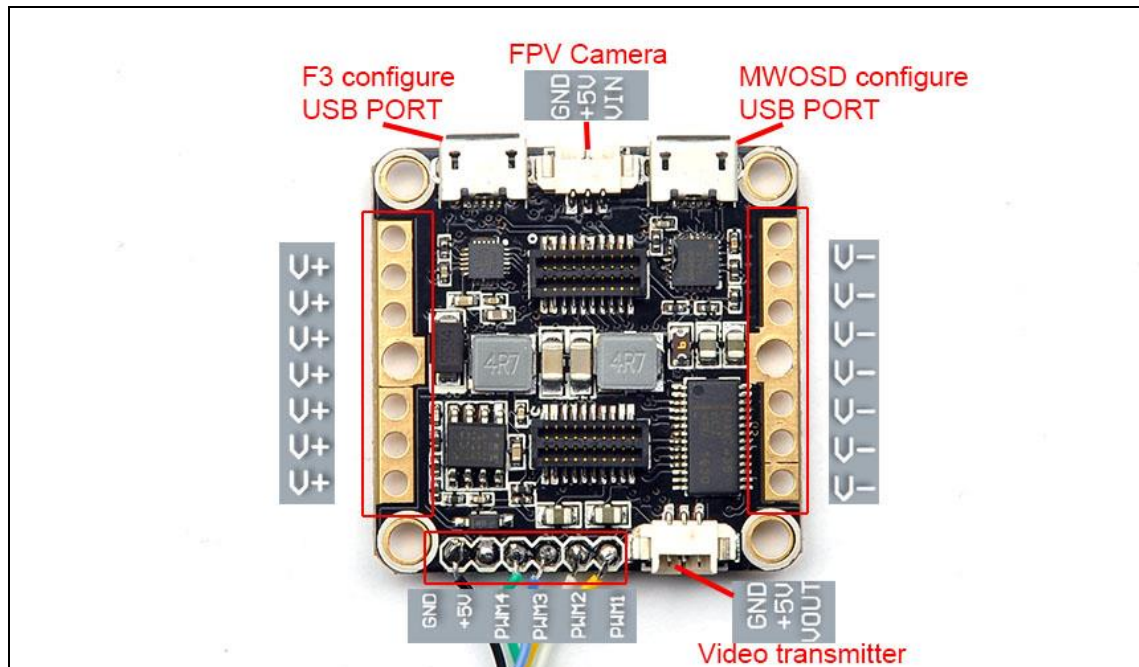
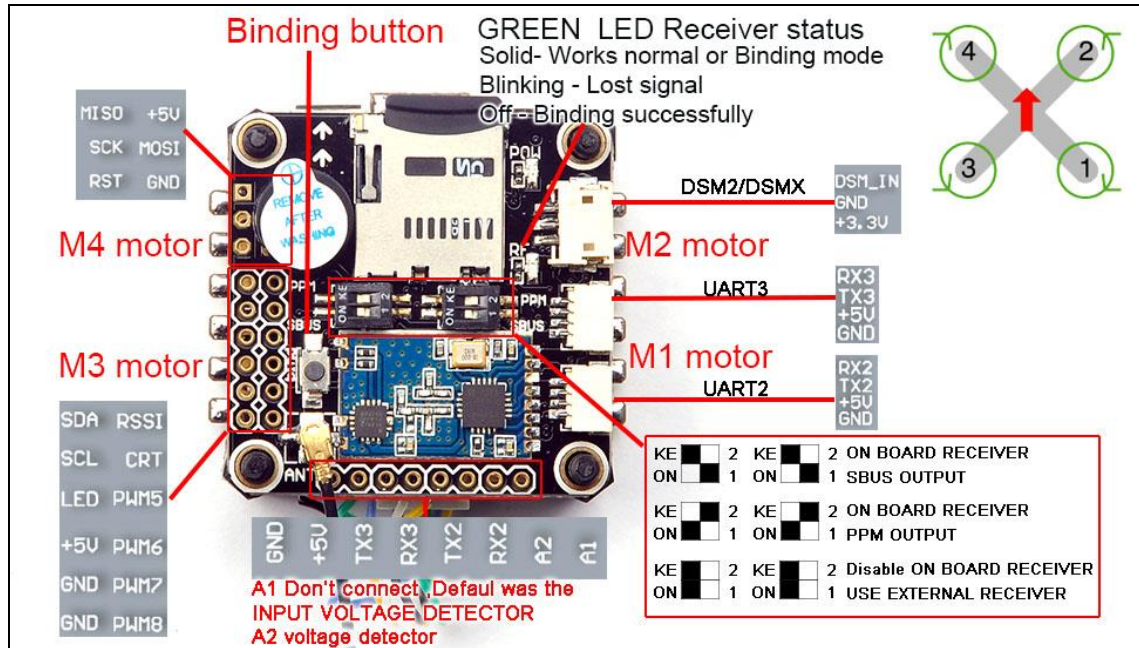


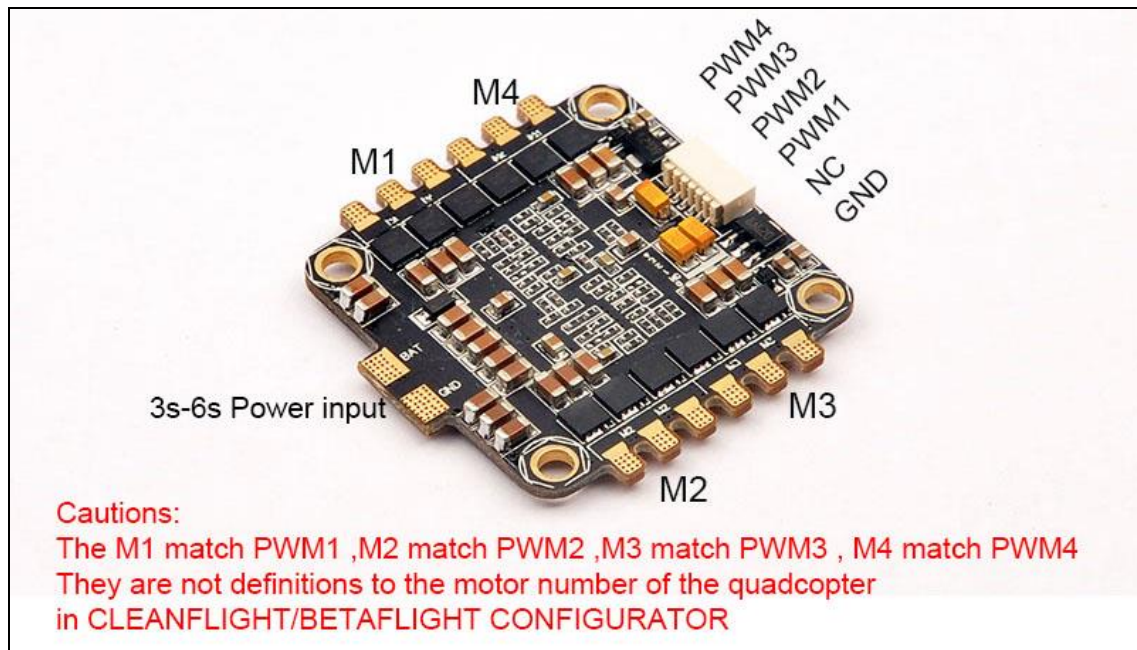
# RacerCuber Manual

## Connection Diagram



## Racercube FEATURES

- F3\_EVO FLIGHT CONTROLLER Jaw-Dropping Flight Performance
- CLEANFLIGHT/BETAFLIGHT support
- ESC Little BEE 20A F406 Chip ESC Ready, BLHELI Pass-through Ready
- FRSKY Compatible RX-F402 D4 MODE SBUS/PPM RECEIVER Ready
- MWOSD Ready
- RSSI/ VOLTAGE DETECTOR Ready
- BUZZER READY



**SPECIFICATION:**

**1. Racercube Flight controller**

- Firmware: Cleanflight 1.13.0
- Target: SP RACING F3 EVO
- STM32F303 CPU, 72Mhz inc FPU
- MPU9200 accelerometer/gyro/compass (connected via SPI)
- BMP280 barometer
- Compatible PPM/CPPM/SBUS/DSM2/DSMX Receiver
- Built-in MW OSD
- Integrate PDB support 3s-6s Input

**2. Racercube Receiver module**

- Channel: 8
- Working voltage: 3-6.0V
- Frequency range: 2400-2483.0Mhz
- Output signal: SBUS/PPM
- Dual way transmission: Yes(DMA mode)
- Transmit distance: > 1Km
- Feedback signal: RSSI, RSS voltage (AV)
- With Failsafe @Throttle 3ch
- Compatible with X3D(DMA mode)/XJT (DMA mode)/DJI/DFT/DHT

## Receiver configuration in Cleanflight:

Enable Serial\_RX for UART<sup>1</sup> and Set Receiver mode RX\_SERIAL ,Select SBUS in Cleanflight or Betaflight Configurator.

Ports DOCUMENTATION FOR 1.13.0

**Note:** not all combinations are valid. When the flight controller firmware detects this the serial port configuration will be reset.  
**Note:** Do NOT disable MSP on the first serial port unless you know what you are doing. You may have to reflash and erase your configuration if you do.

Identifier	Data	Logging	Telemetry	RX	GPS
USB VCP	<input checked="" type="checkbox"/> MSP 115200 ▾	<input type="checkbox"/> Blackbox 115200 ▾	Disabled ▾   AUTO ▾	<input type="checkbox"/> Serial RX	<input type="checkbox"/> 57600 ▾
UART1	<input checked="" type="checkbox"/> MSP 115200 ▾	<input type="checkbox"/> Blackbox 115200 ▾	Disabled ▾   AUTO ▾	<input type="checkbox"/> Serial RX	<input type="checkbox"/> 57600 ▾
UART2	<input type="checkbox"/> MSP 115200 ▾	<input type="checkbox"/> Blackbox 115200 ▾	Disabled ▾   AUTO ▾	<input checked="" type="checkbox"/> Serial RX	<input type="checkbox"/> 57600 ▾
UART3	<input type="checkbox"/> MSP 115200 ▾	<input type="checkbox"/> Blackbox 115200 ▾	Disabled ▾   AUTO ▾	<input type="checkbox"/> Serial RX	<input type="checkbox"/> 57600 ▾

### 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
- SUMH
- XBUS\_MODE\_B
- XBUS\_MODE\_B\_RJ01
- IBUS

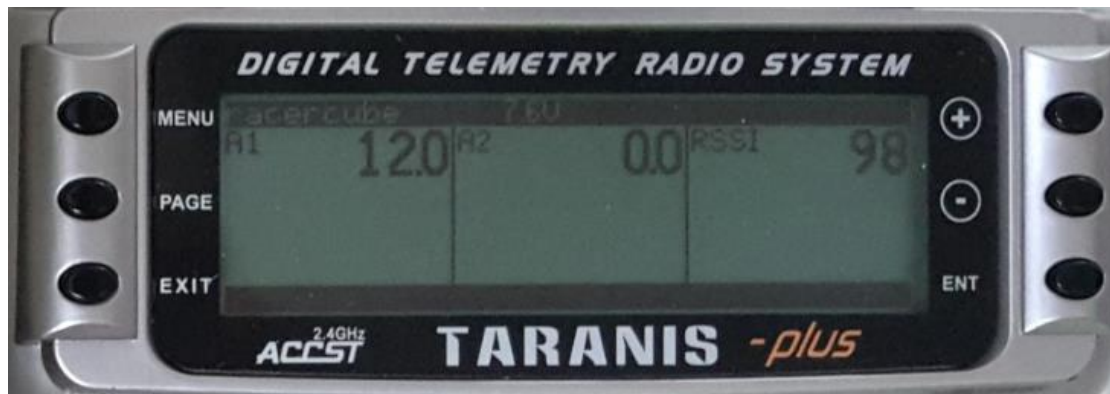
## Binding procedure:

Power for the Racercube while holding the binding button, the green LED will getting to be solid, this indicate the receiver is in binding mode

Turn on the transmitter and set the receiver mode to D<sup>Λ</sup> mode , then move to ENT, press it and the transmitter beeps. The green LED will turn off once the binding procedure successfully.

## RSSI and Telemetry

A \ / A \ Voltage detector , RSSI



After binding successful, turn on the transmitter ,move to the option TELEMETRY, then click “Discover new sensors”



Set Screen to show the Telemetry info



## \.Racercube \in \ ESC module

F396 MCU, \^MHz Runs BLHELI LittleBee Pro \.A firmware

Support \-S Li-po

\PWM input,

Supports oneshot PWM

Only \x\mm, mount holes \x\mm (on new batch, the holes will bechanged to \.x\mm)

Supports damped light

no BEC output