MAMBA UNIVERSAL WIRING GUIDE

MAMBA MK4 H743 V2

Mobile WIFI Reference use tutorial

1、SpeedyBee APP, WIFI, WIF"Mamba Stack"

Open SpeedyBee APP and connect your FC with WIFI. The WIFI name is "Mamba Stack".

If your current model is not in the list, simply select any of the diaotne models

2、UART4 MSP

Ensure that the port UART4 MSP setting is on (factory default on)

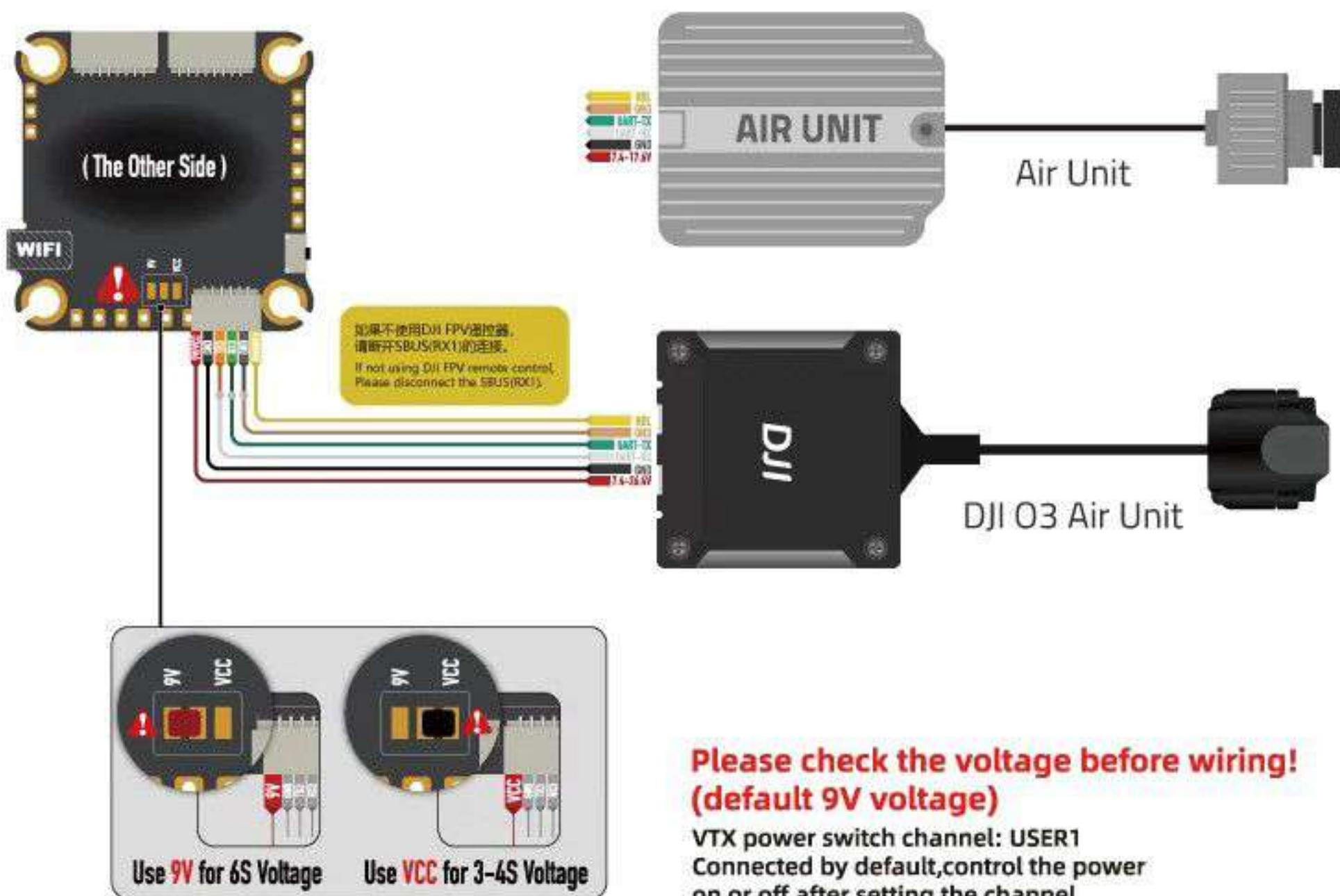Download URL: www.speedybee.com/download/

SpeedyBee APP
Download

Wi Fi

Identifier	Configuration/MSP		Serial RX
USB VCP	⬤ (on)	115200 ▼	◯ (off)
UART 1	◯ (off)	115200 ▼	⬤ (on)
UART 2	◯ (off)	115200 ▼	◯ (off)
UART 3	◯ (off)	115200 ▼	◯ (off)
UART 4	⬤ (on)	115200 ▼	◯ (off)
UART 5	◯ (off)	115200 ▼	◯ (off)

Attention:

1. If you don't see your FC in the connection list, please wait for the official Speedybee update.

2. If you are connected to WIFI and are prompted with "Connecting" or "MSP not responding", please check the settings in "Ports-UART4".Keep the Speedybee APP in the latest version, restart the device and the Speedybee APP.

DJI Wiring

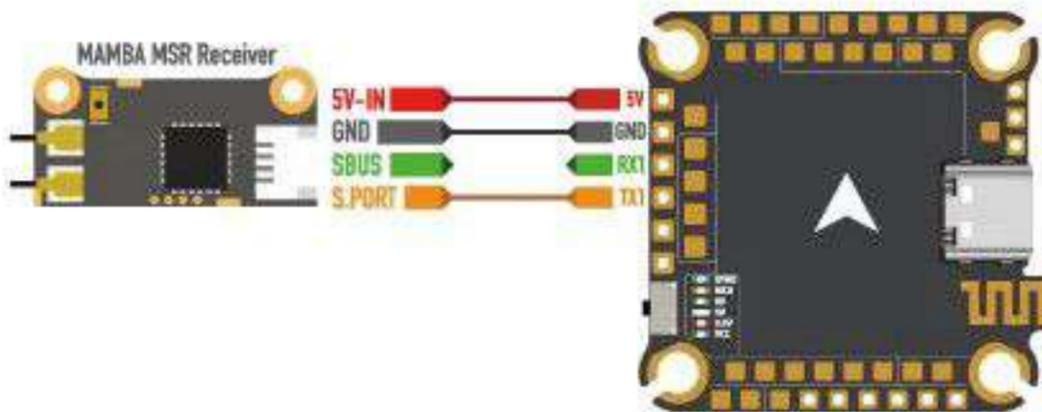| Identifier	Configuration/MSP		Serial RX	Telemetry Output		Sensor Input		Peripherals	
USB VCP	⬤	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 1	◯	115200 ▼	⬤	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 2	◯	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 3	⬤	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 4	◯	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 5	◯	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 6	◯	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼

(The Other Side)

WIFI

AIR UNIT

Air Unit

如果不使用DJI FPV遥控器，
请断开SBUS(RX1)的连接。
If not using DJI FPV remote control,
Please disconnect the SBUS(RX1).

DJI

DJI O3 Air Unit

Use **9V** for 6S Voltage   Use **VCC** for 3-4S Voltage

Please check the voltage before wiring! (default 9V voltage)

VTX power switch channel: USER1
Connected by default,control the power
on or off after setting the channel

Correspond USER1 to the AUX
channel of the remote control.(As shown in the following figure)

USER1

添加链接/Add Link
添加范围/Add Range

AUX 3 ▼

最小/Min: 1700
最大/Max: 2100

900   1000   1200   1400   1500   1600   1800   2000   2100

MAMBA MSR Receiver (F.Prot) Wiring

Identifier	Configuration/MSP		Serial RX	Telemetry Output		Sensor Input		Peripherals	
USB VCP	⬤	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 1	◯	115200 ▼	⬤	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 2	◯	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 3	◯	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 4	◯	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 5	◯	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 6	◯	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼

MAMBA MSR Receiver

5V-IN → 5V
GND → GND
SBUS → RX1
S.PORT → TX1

Receiver

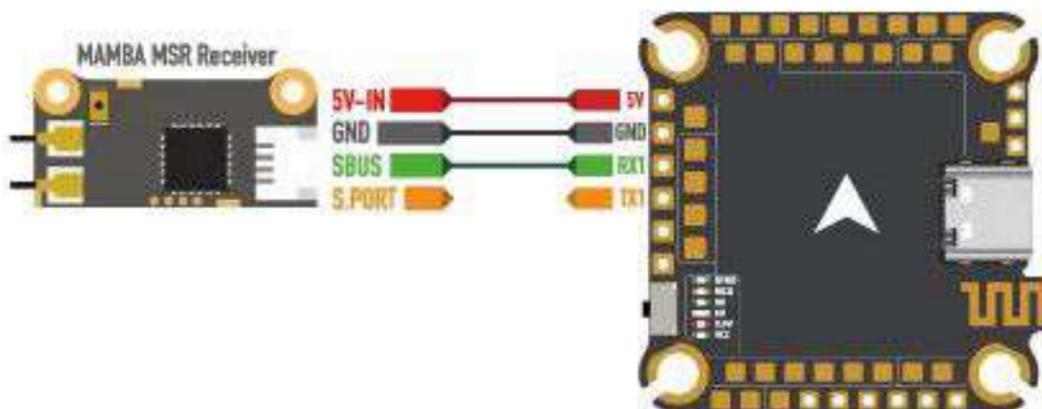Serial-based receiver (SPEKSAY,S ▼)   Receiver Mode

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

FrSky FPort ▼   Serial Receiver Provider

⬤ TELEMETRY   Telemetry output

MAMBA MSR Receiver (SBUS) Wiring

Identifier	Configuration/MSP		Serial RX	Telemetry Output		Sensor Input		Peripherals	
USB VCP	⬤	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 1	◯	115200 ▼	⬤	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 2	◯	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 3	◯	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 4	◯	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 5	◯	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 6	◯	115200 ▼	◯	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼

MAMBA MSR Receiver

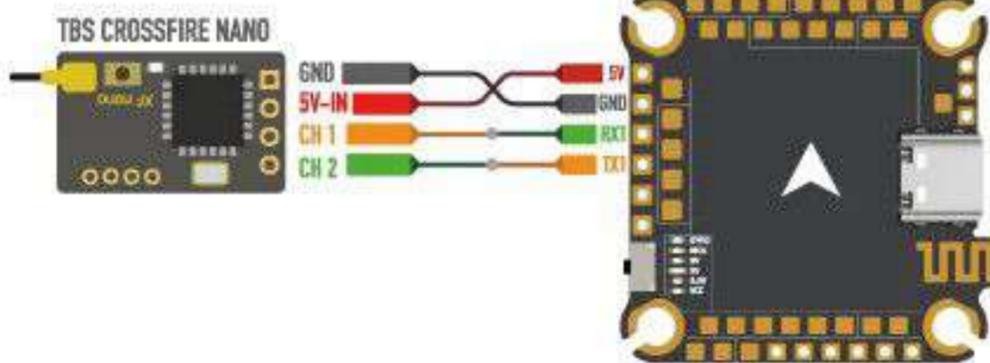5V-IN → 5V
GND → GND
SBUS → RX1
S.PORT → TX1

Receiver

Serial-based receiver (SPEKSAY,S ▼)   Receiver Mode

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

SBUS ▼   Serial Receiver Provider

TBS CROSSFIRE NANO Wiring

Identifier	Configuration/MSP		Serial RX	Telemetry Output		Sensor Input		Peripherals	
USB VCP	⬤ON	115200 ▼	⬤OFF	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 1	⬤OFF	115200 ▼	⬤ON	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 2	⬤OFF	115200 ▼	⬤OFF	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 3	⬤OFF	115200 ▼	⬤OFF	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 4	⬤OFF	115200 ▼	⬤OFF	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 5	⬤OFF	115200 ▼	⬤OFF	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 6	⬤OFF	115200 ▼	⬤OFF	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼

TBS CROSSFIRE NANO

GND — 5V
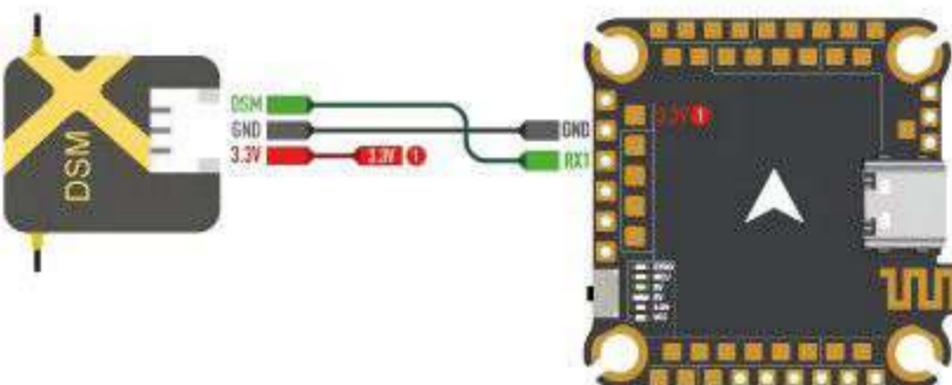5V-IN — GND
CH 1 — RX1
CH 2 — TX1

Receiver

Serial-based receiver (SPEKSAY,S ▼)   Receiver Mode

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

CRSF ▼   Serial Receiver Provider

DSM Wiring

Identifier	Configuration/MSP		Serial RX	Telemetry Output		Sensor Input		Peripherals	
USB VCP	⬤ON	115200 ▼	⬤OFF	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 1	⬤OFF	115200 ▼	⬤ON	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 2	⬤OFF	115200 ▼	⬤OFF	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 3	⬤OFF	115200 ▼	⬤OFF	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 4	⬤OFF	115200 ▼	⬤OFF	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 5	⬤OFF	115200 ▼	⬤OFF	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 6	⬤OFF	115200 ▼	⬤OFF	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼

DSM
DSM — 3.3V
GND — GND
3.3V — RX1

DSM接收机需要按步骤操作

1. 选择DSMX 协议;（SPEKTRUM1024或SPEKTRUM2048）
2. betaflight设置;
   cli命令行输入:**set spektrum_sat_bind = 5 save**
3. 对频操作;
4. 接收机对频完成后，betaflight设置;
   cli命令行输入:**set spektrum_sat_bind = 0 save**
5. 完成;

DSM receivers need to follow the steps

1. Select DSMX protocol (SPEKTRUM1024 or SPEKTRUM2048)
2. betaflight settings:
   cli command line input:**set spektrum_sat_bind = 5 save**
3. Frequency pairing operation.
4. After the receiver completes the frequency pairing, set betaflight
   cli command line input:**set spektrum_sat_bind = 0 save**
5. Finish

Receiver

Serial-based receiver (SPEKSAY,S ▼)   Receiver Mode

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

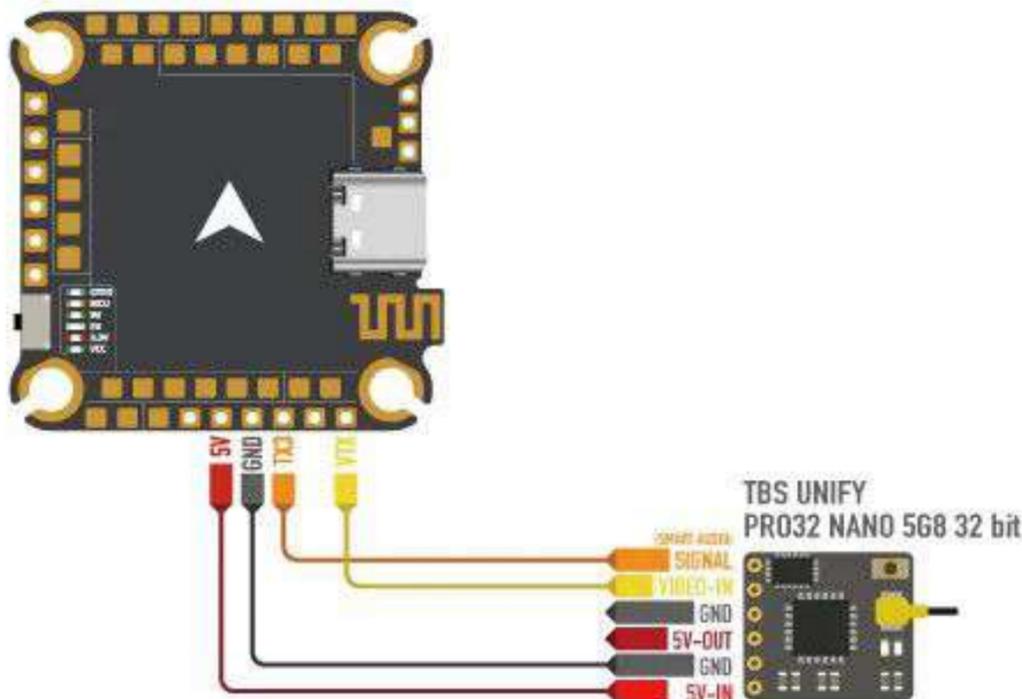SPEKTRUM2048 ▼   Serial Receiver Provider

MAMBA ULTRA 1000 Video Transmitter Wiring

Identifier	Configuration/MSP	Serial RX	Telemetry Output		Sensor Input		Peripherals	
USB VCP	🟠 115200 ▼	⚪	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 1	⚪ 115200 ▼	🟠	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 2	⚪ 115200 ▼	⚪	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 3	⚪ 115200 ▼	⚪	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	VTX(IRC Tran ▼	AUTO ▼
UART 4	⚪ 115200 ▼	⚪	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 5	⚪ 115200 ▼	⚪	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 6	⚪ 115200 ▼	⚪	Disabled ▼	AUTO ▼	GPS ▼	AUTO ▼	Disabled ▼	AUTO ▼

ULTRA 1000

MAMBA VTX

9V — GND — TX3 — VTX

VIDEO
GND
5V-OUT
DATA
GND
7-36V IN
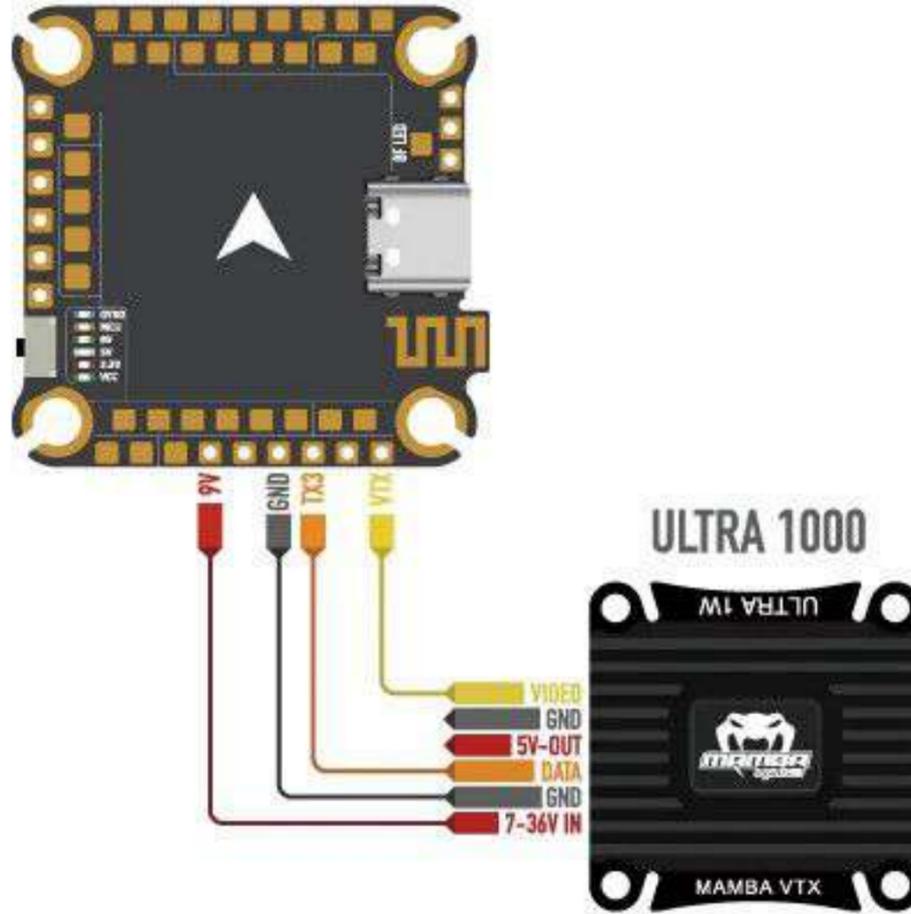
TBS UNIFY PRO32 NANO 5G8 32 bit Wiring

| Identifier	Configuration/MSP	Serial RX	Telemetry Output		Sensor Input		Peripherals	
USB VCP	🟠 115200 ▼	⚪	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 1	⚪ 115200 ▼	🟠	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 2	⚪ 115200 ▼	⚪	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 3	⚪ 115200 ▼	⚪	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	VTX(TBS Sma ▼	AUTO ▼
UART 4	⚪ 115200 ▼	⚪	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 5	⚪ 115200 ▼	⚪	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼	Disabled ▼	AUTO ▼
UART 6	⚪ 115200 ▼	⚪	Disabled ▼	AUTO ▼	GPS ▼	AUTO ▼	Disabled ▼	AUTO ▼

TBS UNIFY
PRO32 NANO 5G8 32 bit

5V — GND — TX3 — VTX

SMART AUDIO
SIGNAL
VIDEO-IN
GND
5V-OUT
GND
5V-IN

Identifier	Configuration/MSP		Serial RX	Telemetry Output		Sensor Input		Peripherals	
USB VCP	⬤	115200 ▾	⬤	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾
UART 1	⬤	115200 ▾	⬤	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾
UART 2	⬤	115200 ▾	⬤	Disabled ▾	AUTO ▾	GPS ▾	AUTO ▾	Disabled ▾	AUTO ▾
UART 3	⬤	115200 ▾	⬤	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾
UART 4	⬤	115200 ▾	⬤	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾
UART 5	⬤	115200 ▾	⬤	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾
UART 6	⬤	115200 ▾	⬤	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾

- Setup
- Ports
- **Configuration**
- Power & Battery
- PID Tuning
- Receiver
- Modes
- Modes
- OSD
- Video Transmitter
- LED Strip
- Blackbox
- CLI

GPS

5V	—	5V ❶
RX	—	TX2 ❸
TX	—	RX2 ❹
GND	—	GND ❷

5V ❶
GND ❷
TX2 ❸
RX2 ❹
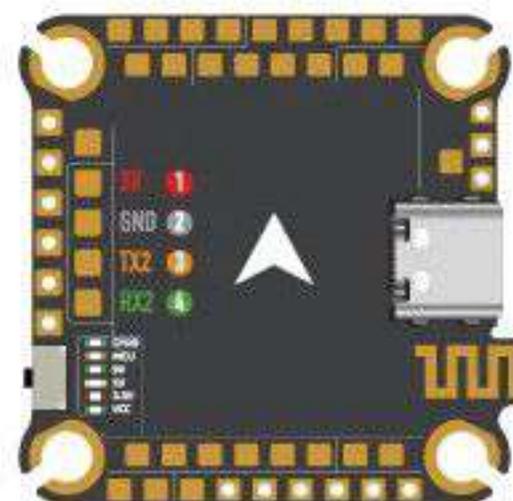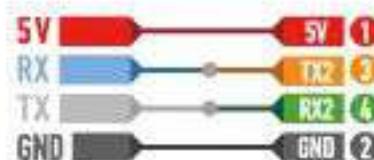
GPS

⬤ **GPS**   GPS for navigation and telemetry   ⓘ

Note: Remember to configure a Serial Port (via Ports tab) when using GPS feature.
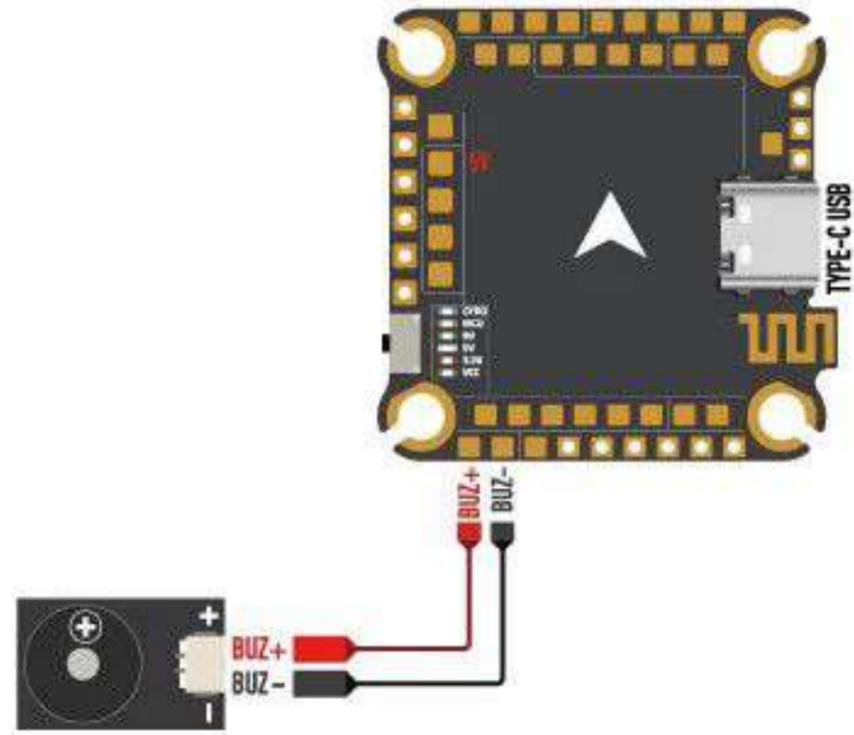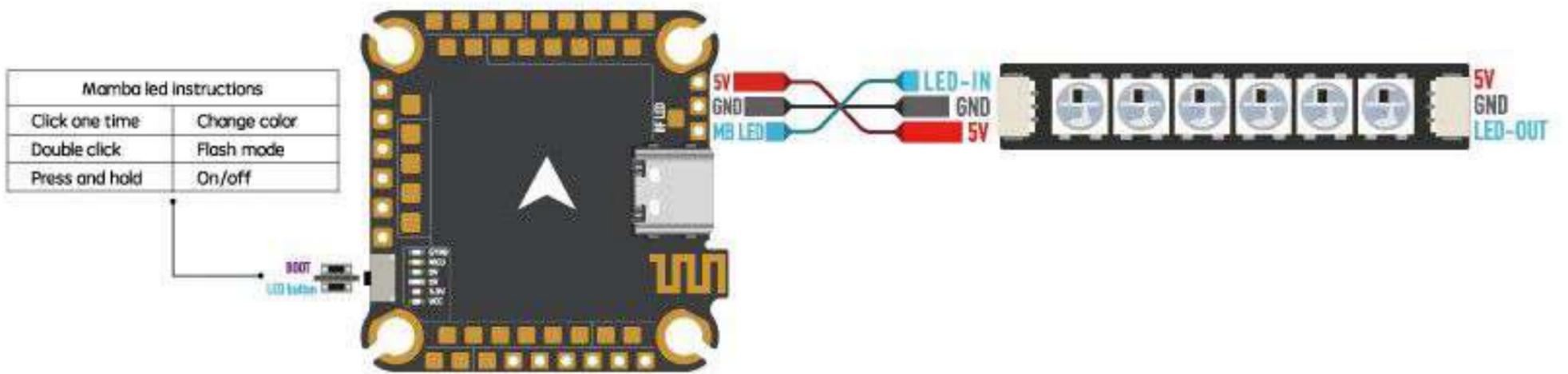
NMEA ▾   Protocol

⬤ Auto Baud

⬤ Auto Config

Auto-detect ▾   Ground Assistance Type

0.00 ⬍   Magnetometer Declination[deg]

BUZZER Wiring

BUZ+
BUZ−

TYPE-C USB

5V

OFRO
MCU
5V
3.3V
VCC

BUZ+
BUZ−

LED Wiring

Mamba led instructions	
Click one time	Change color
Double click	Flash mode
Press and hold	On/off

BOOT
LED button

5V
GND
MB LED

LED-IN
GND
5V

5V
GND
LED-OUT

OFRO
MCU
5V
3.3V
VCC

Camera Wiring

VIDEO
GND
5-36V

VIDEO
GND
5V

OFRO
MCU
5V
3.3V
VCC