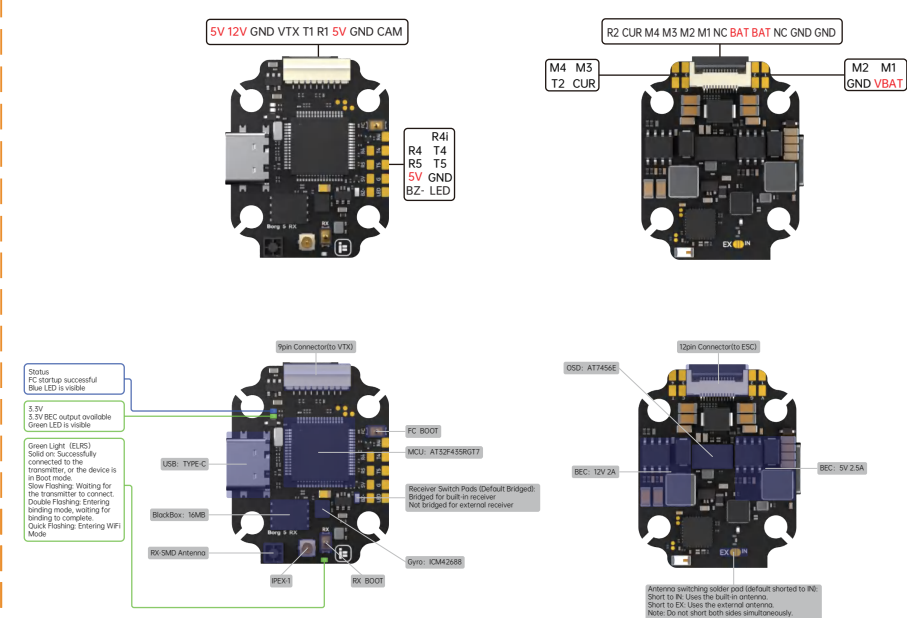


iFlight Borg 5S RX FC Wiring diagram

Parameters:

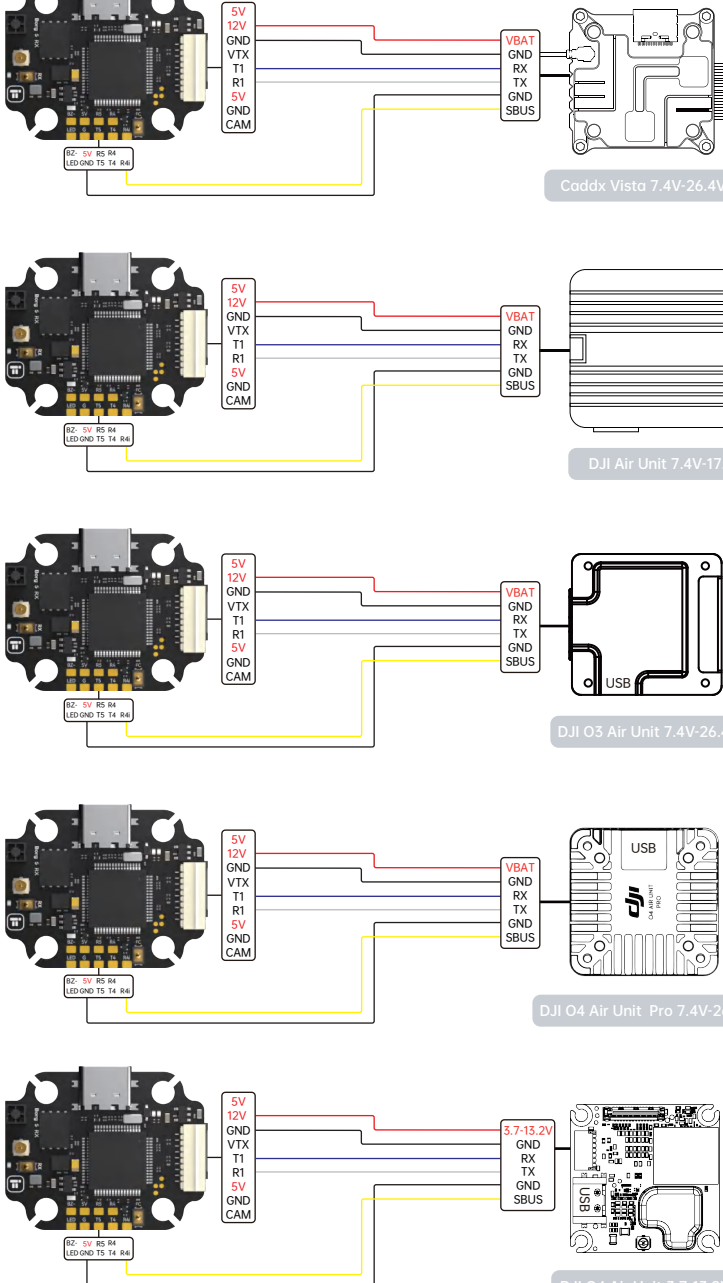
FC Specifications
Input voltage: 4-8S, Support LHV battery
Dimensions: 54*27mm*1
Mount pattern: 20*20*4
Weight: 6.8g*1
MCU: AT32F456RG77
Receiver: Built-in ELRS 2.4GHz
Gyro: IMX42688
Baro: N/A
OSD: AT7456E
BlackBox: 16MB
Motor outputs: 4
I2C: Not supported
BEC: 5V/2.5A, 12V/2A (12V with VTX switch)
LED Strip: Supported
Beeper: Yes
VTX protocol: Support DJI MSP/SmartAudio/RCTramp/HDZero
UARTS: 4
Unit: 4*UART (UART1, UART2, UART4, UART5)
UART1: VTX HD / Analog
UART2: ESC Telemet
UART4: Built-in ELRS receiver/SBUS input
UART5: GPS or other sensors that require a serial port
VTX_ON/OFF Mode Command:
resource PINIO 1 C14
set pinio config = 1,1,1,1
set pinio box = 40,41,255,255
set box user_1name = VTX_ON/OFF
aux 0 40 8 900 2100 0 0
save

Receiver Specification
MCU: ESP8285
RF: SX1281
Receiver Type: 2.4GHz
Telemetry power: 17mW (12.3dBm)
LNA: N/A
Firmware: iFlight 2.4GHz Nano RX
Lua Script: iFlight 2.4GHz Nano
TCXO: Yes



DJI Digital Transmitters: SUBS Protocol

Firmware Target: iFLIGHT_BLITZ_F435



Unit	Channel	Mode	Power	Antenna	Receiver
UART1	115200	Disabled	AUTO	Disabled	AUTO
UART2	115200	Disabled	AUTO	Disabled	AUTO
UART3	115200	Disabled	AUTO	Disabled	AUTO
UART4	115200	Disabled	AUTO	Disabled	AUTO
UART5	115200	Disabled	AUTO	Disabled	AUTO
UART6	115200	Disabled	AUTO	Disabled	AUTO

Receiver

Serial (via UART1) Receiver Mode

The UART for the receiver must be set to 'Serial Rx' (in the Ports tab)

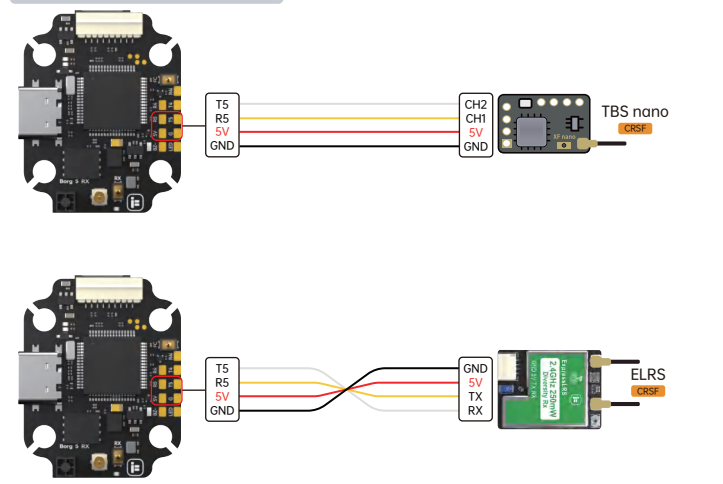
Select the correct data format from the drop-down, below:

SBUS Serial Receiver Provider

- To enable the air unit OSD under Betaflight 4.4 version, you need to select VTX (MSP+Displayport) in the peripheral port where the air unit signal is connected to the port interface.
- note: DJI FPV Remote Controller2 is for DJI O3 Air Unit
DJI FPV Remote Controller is for DJI Air Unit and Vista
- Please check your protocols, otherwise your DJI Radio won't input signals!
DJI Goggle protocol and Betaflight protocol has to match!
For lower signal latency use the SBUS BAUD_FAST protocol option on both ends.
- For Betaflight Copy Paste "set sbus_baud_fast=on" into your Betaflight Configurator CLI then hit enter.
Use "save" and hit enter to save the changes.
Default: sbus_baud_fast=off, Goggle protocol set to NORMAL

Others Receivers(TBS/ELRS): CRSF Protocol

Firmware Target: iFLIGHT_BLITZ_F435



Receiver

Serial (via UART) Receiver Mode

The UART for the receiver must be set to 'Serial Rx' (in the Ports tab)

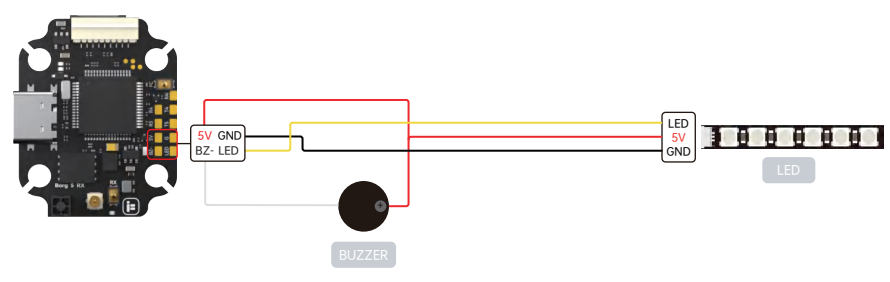
Select the correct data format from the drop-down, below:

CRSF Serial Receiver Provider

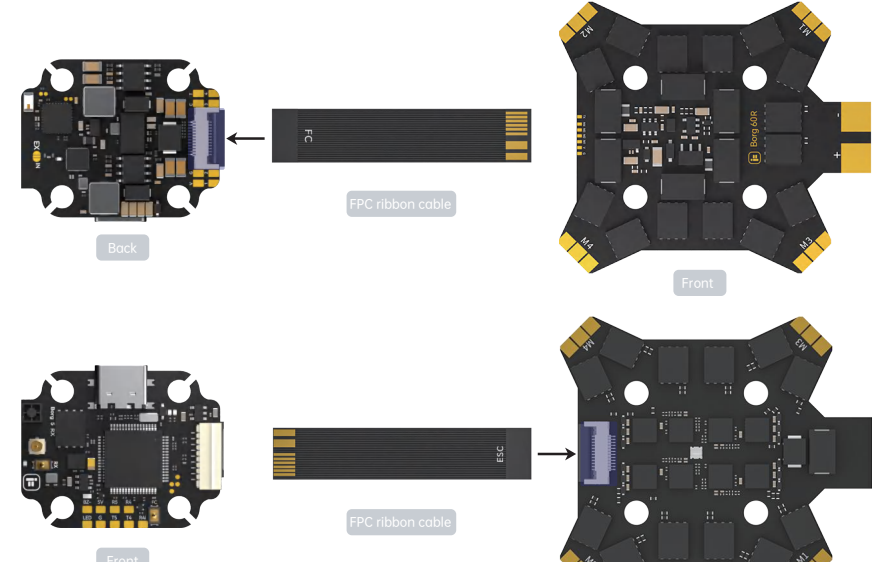
Telemetry

TELEMETRY Telemetry output

LED/BUZZER

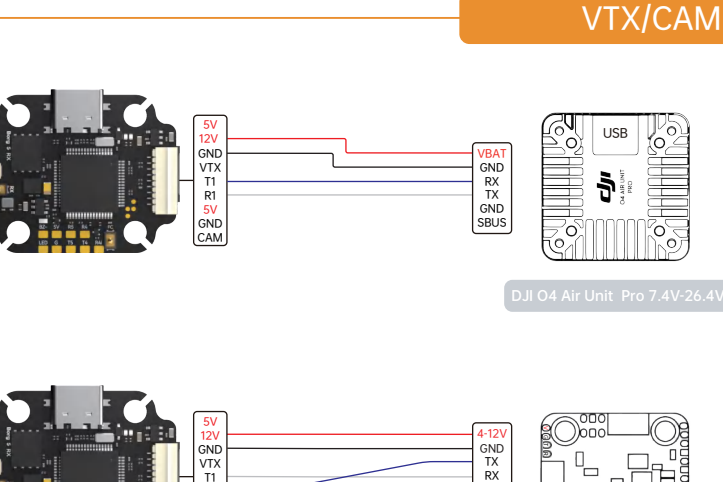


ESC

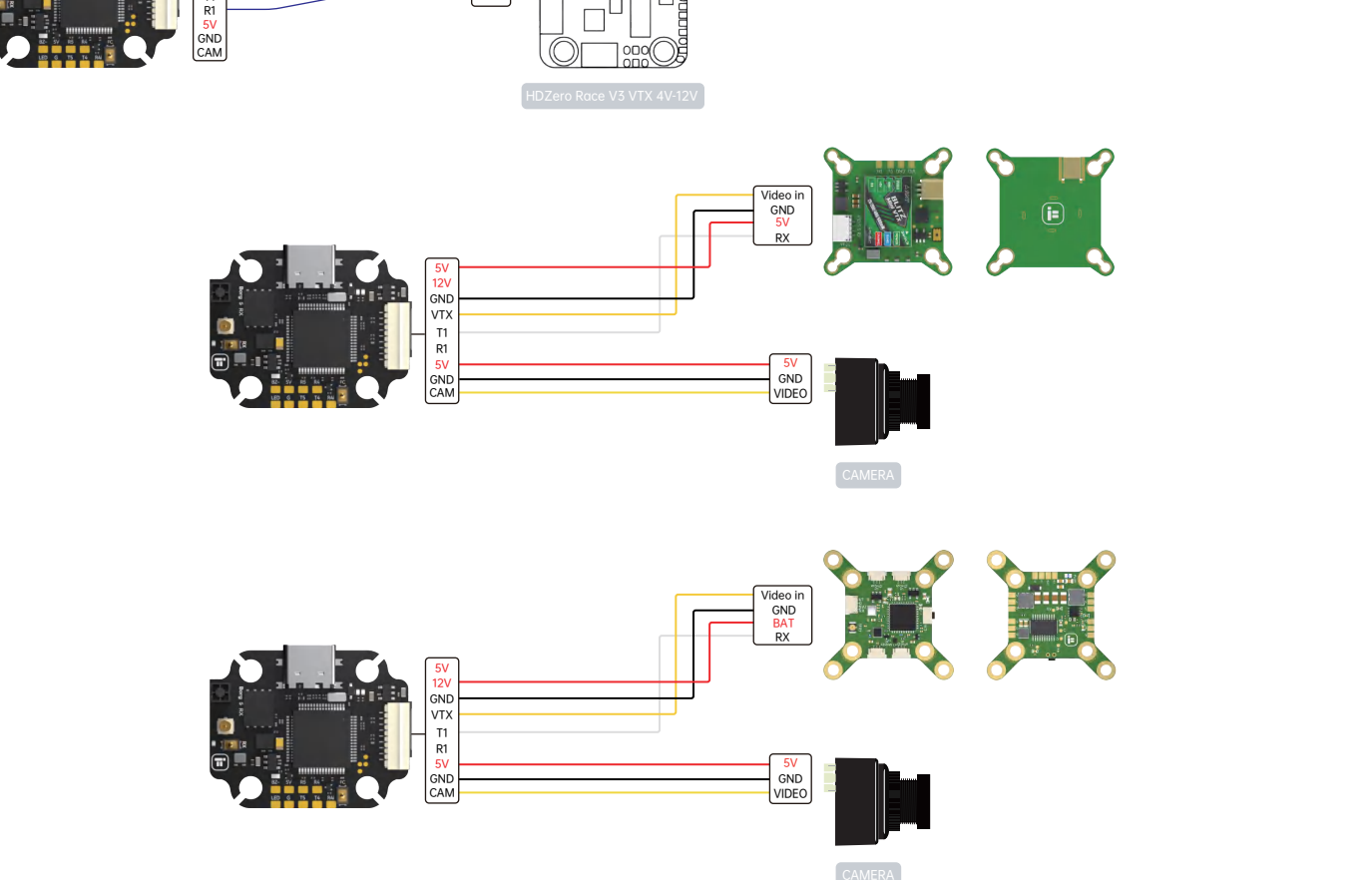


Note: if using an ESC from another brand, please ensure the wiring is connected correctly.

VTX/CAM



Unit	Channel	Mode	Power	Antenna	Receiver
UART1	115200	Disabled	AUTO	Disabled	AUTO
UART2	115200	Disabled	AUTO	Disabled	AUTO
UART3	115200	Disabled	AUTO	Disabled	AUTO
UART4	115200	Disabled	AUTO	Disabled	AUTO
UART5	115200	Disabled	AUTO	Disabled	AUTO
UART6	115200	Disabled	AUTO	Disabled	AUTO



Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	115200	Disabled	AUTO	Disabled	AUTO
UART1	115200	Disabled	AUTO	Disabled	AUTO
UART2	115200	Disabled	AUTO	Disabled	AUTO
UART3	115200	Disabled	AUTO	Disabled	AUTO
UART4	115200	Disabled	AUTO	Disabled	AUTO
UART5	115200	Disabled	AUTO	Disabled	AUTO
UART6	115200	Disabled	AUTO	Disabled	AUTO

VTX_ON/OFF

AUX 9

Min: 900 Max: 2100

VTX_ON/OFF

AUX 9

Min: 1600 Max: 2100

VTX_ON/OFF

AUX 9

Min: 1600 Max: 2100

VTX_ON/OFF Mode On

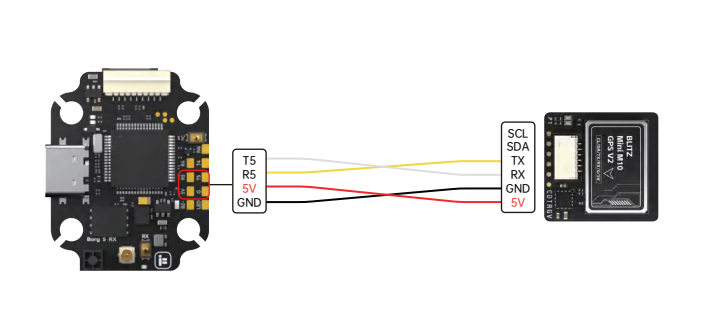
VTX_ON/OFF Mode Off

- To control VTX/on/off, please drag the range to 1600-2000. If the icon is yellow, it is on, and if it is gray, it is off.

Ref flashing firmware or restoring the default factory settings requires manually entering the following commands in Betaflight CLI to re-enable VTX switch control:

resource PINIO 1 C14
set pinio config = 1,1,1,1
set pinio box = 40,41,255,255
set box user_1name = VTX_ON/OFF
aux 0 40 8 900 2100 0 0
save

GPS



GPS Configuration

UBLOX Protocol

Auto Config

Use Galileo

Set Home Point Once

Auto-detect Ground Assistance Type

SDA/SCL pads can not be reconnected to UARTs

Dimensions/Mounting pattern

