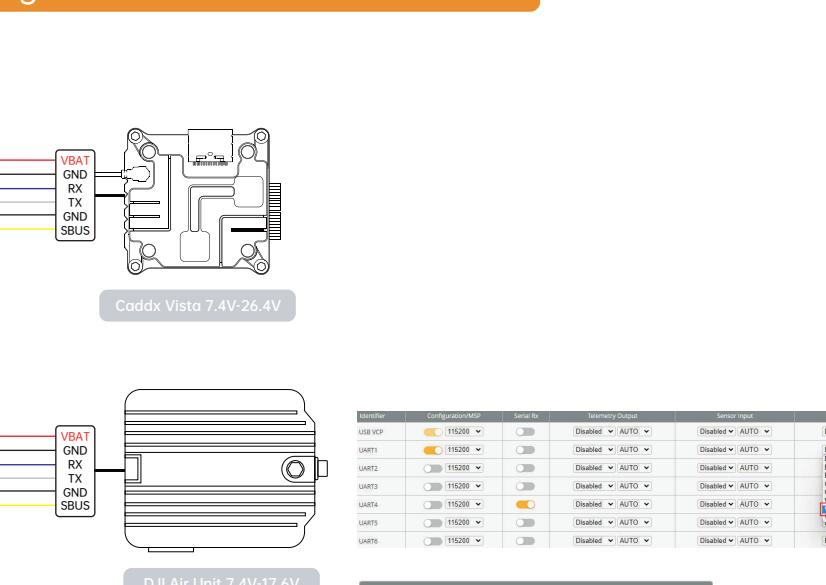
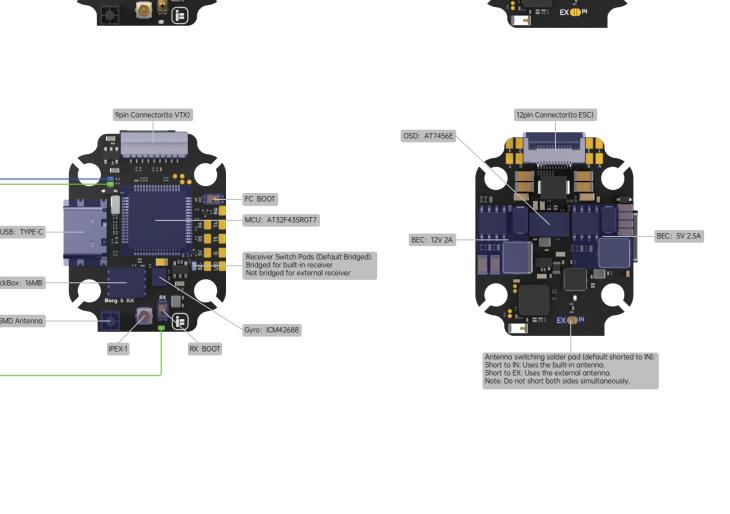


iFlight Borg 5S RX FC Wiring diagram

Parameters:

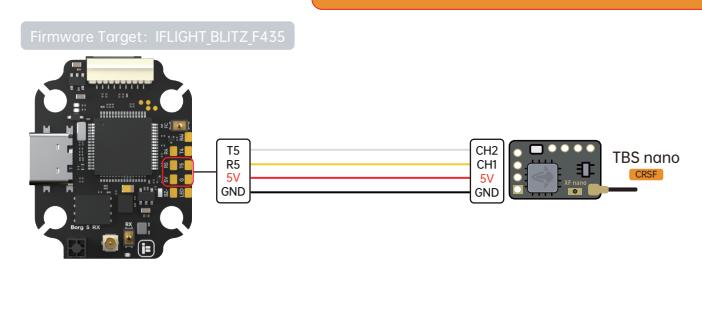
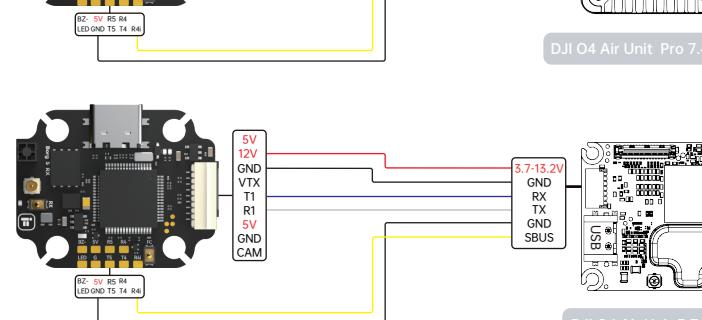
FC Specifications
Input voltage: 4-8S, Support LiHV battery
Dimensions: 34*27mm1
Mount pattern: 20*20 ϕ 4
Weight: 6.8g±1
MCU: ATmega328P
Receiver: Built-in ELRS 2.4GHz
Gyro: ICM4268
Baro: N/A
OSD: ATT746E
BlockBox: 1M8
Motor outputs: 4
DCM supported
BEC: 5V 2.5A, 12V 2A (12V with VTX switch)
LED Strip supported
Beeper: Yes
VTX protocol: Support DJI MSP/SmartDuo/IRCrompHDZero
UARTS: 4
Uart: 4*UART (UART1, UART2, UART4, UART5)
UART1: VTX HD / Analog
UART2: ESC Telemetry
UART4: Built-in ELRS receiver/SBUS input
UART5: GPS or other sensors that require a serial port
VTX_ON/OFF Mode Command:
resource PINIO1 C14
set pinio_config = 1,1,1
set pinio_box = 40,41,255,255
set box_user1_name = VTX_ON/OFF
aux 0 40 8 900 2100 0
save

Firmware:
Betaflight: iFLIGHT BLITZ F435
Receiver Firmware: iFLIGHT 2.4GHz Nano RX

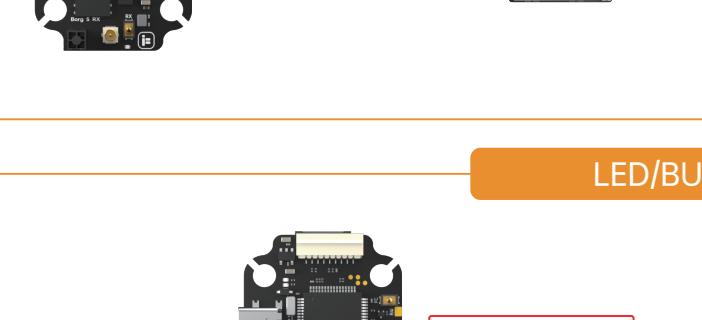


DJI Digital Transmitters: SUBS Protocol

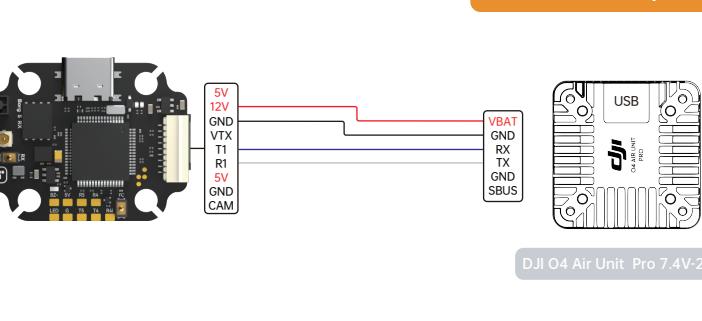
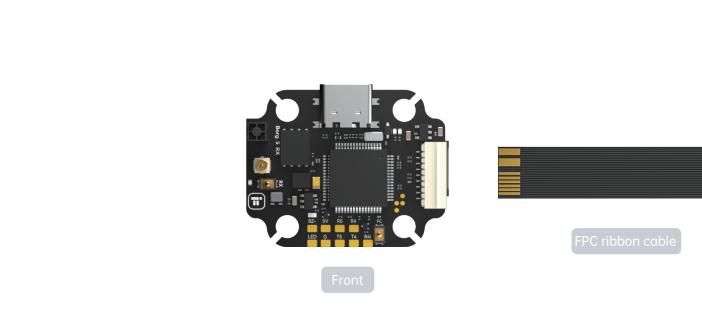
Firmware Target: iFLIGHT_BLITZ_F435



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



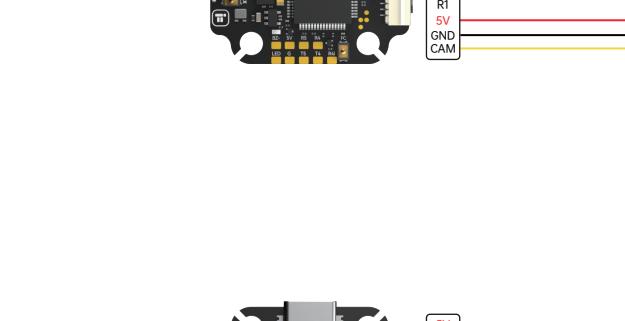
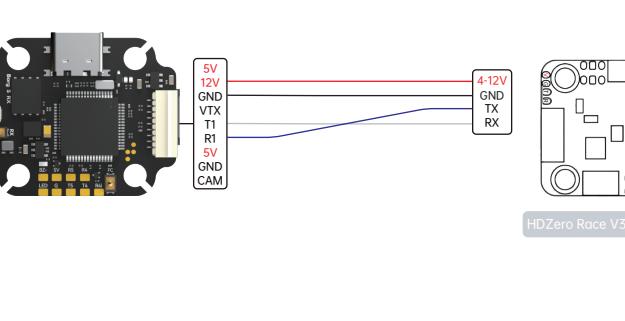
- To enable the air unit OSD under Betaflight 4.4 version, you need to select VTX (MSP+Displayport) in the peripheral port where the air unit signal is connected to the port interface.
- note: DJI FPV Remote Controller2 is for DJI O3 Air Unit
DJI FPV Remote Controller is for DJI Air Unit and Vista
-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



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

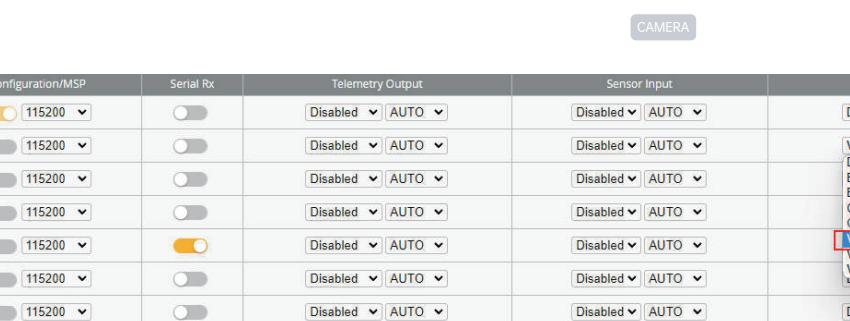
Others Receivers(TBS/ELRS): CRSF Protocol

Firmware Target: iFLIGHT_BLITZ_F435

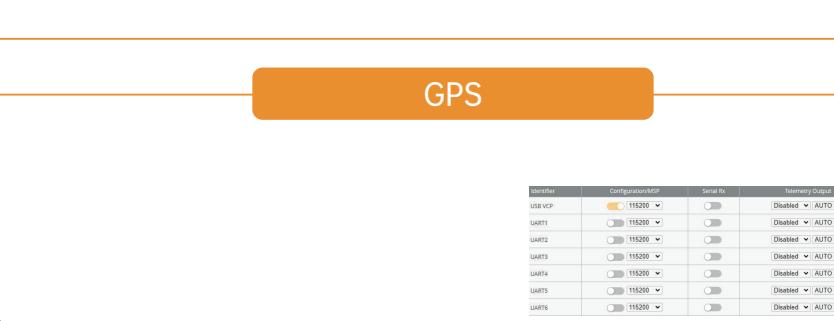
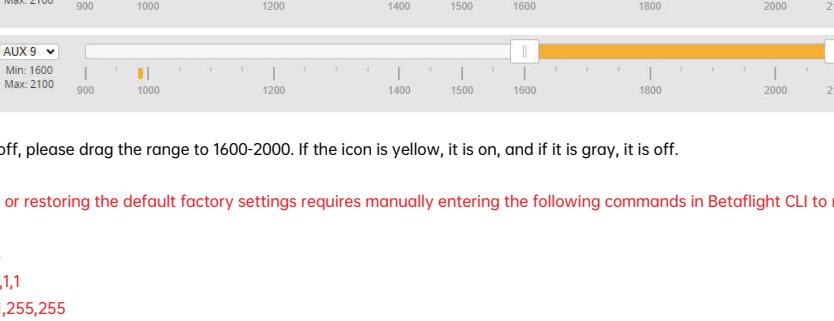


Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	115200	Disabled	Disabled	Disabled	Disabled
UART1	115200	Enabled	Disabled	Enabled	Enabled
UART2	115200	Enabled	Disabled	Enabled	Enabled
UART3	115200	Enabled	Disabled	Enabled	Enabled
UART4	115200	Enabled	Disabled	Enabled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

LED/BUZZER



ESC



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

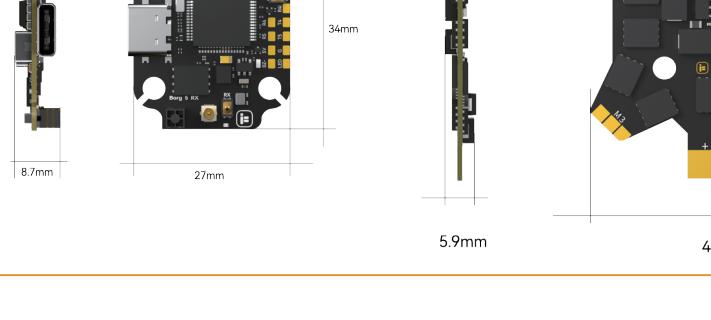
Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
VTX_ON/OFF	AUX 9	Disabled	Enabled	Disabled	Enabled
VTX_ON/OFF	AUX 9	Enabled	Disabled	Enabled	Enabled
VTX_ON/OFF	AUX 9	Enabled	Disabled	Enabled	Enabled
VTX_ON/OFF	AUX 9	Enabled	Disabled	Enabled	Enabled
VTX_ON/OFF	AUX 9	Enabled	Disabled	Enabled	Enabled
VTX_ON/OFF	AUX 9	Enabled	Disabled	Enabled	Enabled

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.

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

```
resource PINIO1 C14
set pinio_config = 1,1,1
set pinio_box = 40,41,255,255
set box_user1_name = VTX_ON/OFF
aux 0 40 8 900 2100 0
save
```

VTX/CAM



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

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

● 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.

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

```
resource PINIO1 C14
set pinio_config = 1,1,1
set pinio_box = 40,41,255,255
set box_user1_name = VTX_ON/OFF
aux 0 40 8 900 2100 0
save
```

GPS

Identifier	Configuration/MSP
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