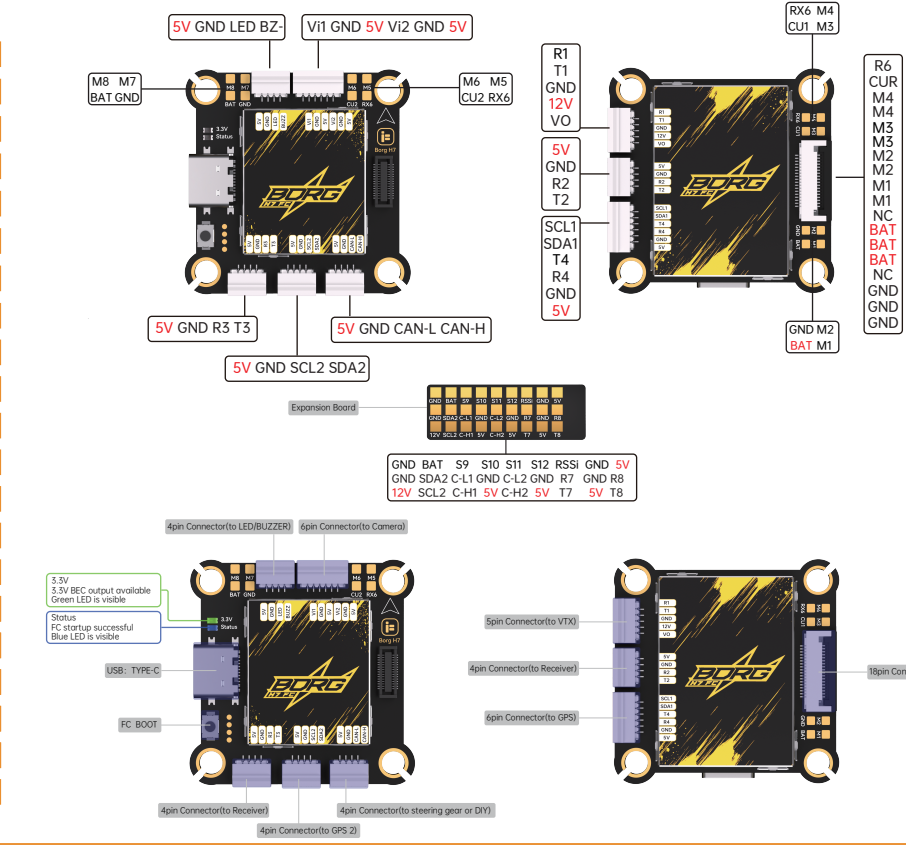


iFlight Borg H7 FC Wiring diagram

Parameters:

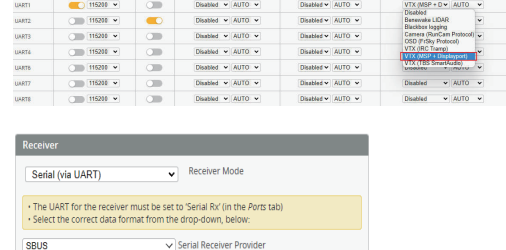
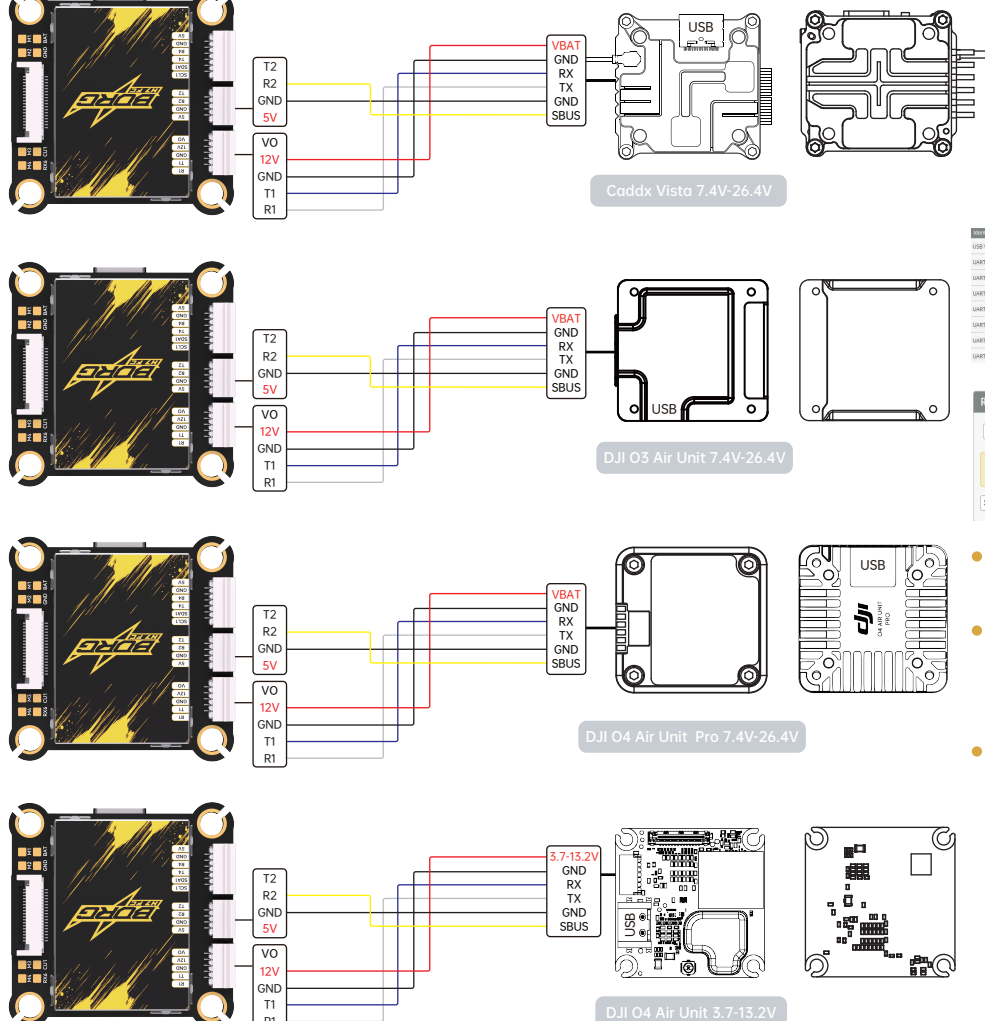
FC Specifications
 Input voltage: 4-12S, Support LHV battery
 Dimensions: 37.5*30.5*4
 Weight: 17g
 MCU: STM32H743VIM6
 Gyro: ICM42688*2
 Baro: SPA06-003
 OSD: AT7456E (LGA)
 Blackbox: 32MB
 Motor outputs: 8
 I/O: I2C*2 CAN: CAN*2
 RSSI ADC input: Yes
 BEC: 5V 2.5A, 12V 2A (12V with VTX switch)
 LED Strip: Supported
 Buzzer: Yes
 VTX protocol: Support DJI MSP/SmartAudio/IRC/Tramp/HDZero
 UARTS: 7
 UART: 7*UART (UART1, UART2, UART3, UART4, UART6, UART7, UART8)
 UART1: VTX/IO/Analog
 UART2: Receiver
 UART3: GPS or other sensors that require a serial port
 UART4: GPS
 UART6: ESC Telemet
 UART7/UART8: GPS or other sensors that require a serial port
 VTX ON/OFF Mode Command:
 resource PINIO 1 D10
 set pinio_config = 1,1,1,1
 set pinio_box = 40,41,255,255
 set box_user_1_name = VTX_ON/OFF
 aux 0 40 8 900 2100 0 0
 save

Firmware:
 Betaflight: iFLIGHT_BORG_H7
 INAV: iFLIGHT_BORG_H7



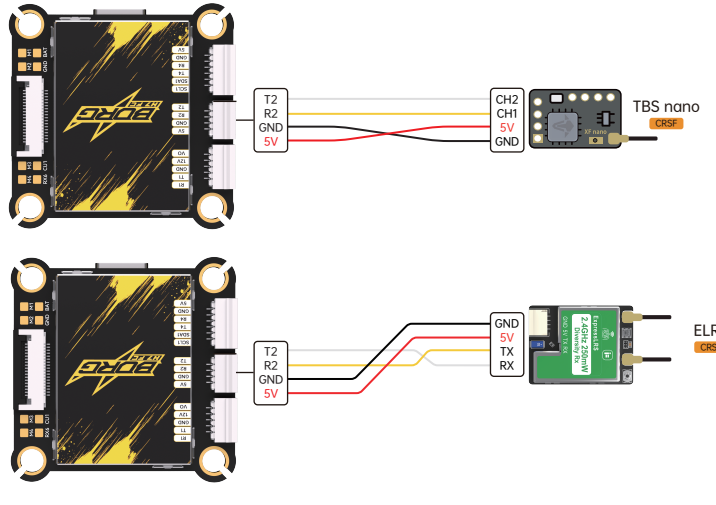
DJI Digital Transmitters: SUBS Protocol

Firmware Target: iFLIGHT_BORG_H7



- 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.
- 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



Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	115200	Disabled	Disabled	Disabled	Disabled
UART1	115200	Disabled	Disabled	Disabled	Disabled
UART2	115200	Disabled	Disabled	Disabled	Disabled
UART3	115200	Disabled	Disabled	Disabled	Disabled
UART4	115200	Disabled	Disabled	Disabled	Disabled
UART5	115200	Disabled	Disabled	Disabled	Disabled
UART6	115200	Disabled	Disabled	Disabled	Disabled
UART7	115200	Disabled	Disabled	Disabled	Disabled
UART8	115200	Disabled	Disabled	Disabled	Disabled

Receiver

Serial (via UART) Receiver Mode

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

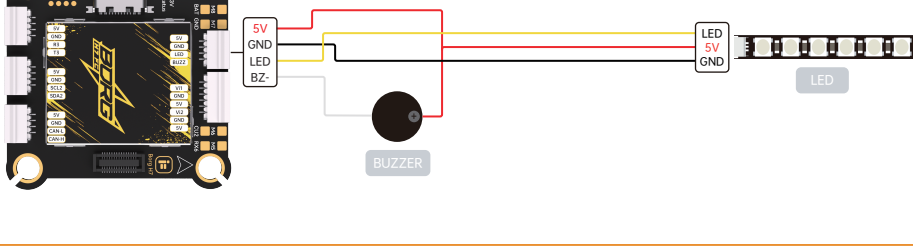
Select the correct data format from the drop-down, below:

CRSF Serial Receiver Provider

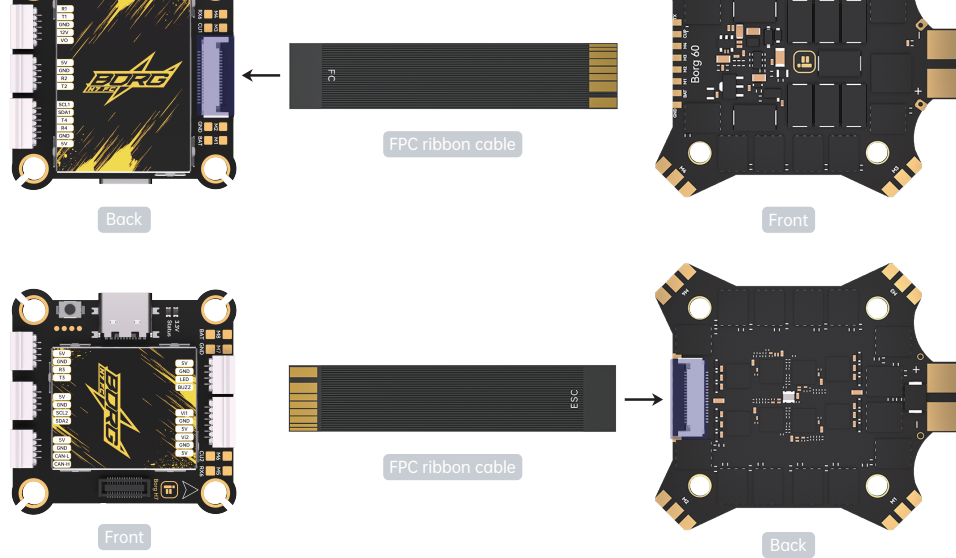
Telemetry

TELEMETRY Telemetry output

LED/BUZZER



ESC



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

VTX/CAM

Diagram showing the wiring connections for VTX and CAM. Key components and connections include:

- DJI O4 Air Unit Pro 7.4V-26.4V:** VO 12V GND T1 R1, VBAT GND RX TX GND SBus.

Configuration/MSP settings for VTX and CAM:

Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	115200	Disabled	Disabled	Disabled	Disabled
UART1	115200	Disabled	Disabled	Disabled	VTX (MSP + D+)
UART2	115200	Disabled	Disabled	Disabled	Disabled
UART3	115200	Disabled	Disabled	Disabled	Disabled
UART4	115200	Disabled	Disabled	Disabled	Disabled
UART5	115200	Disabled	Disabled	Disabled	Disabled
UART6	115200	Disabled	Disabled	Disabled	Disabled
UART7	115200	Disabled	Disabled	Disabled	Disabled
UART8	115200	Disabled	Disabled	Disabled	Disabled

VTX ON/OFF Mode command:

```
resource PINIO 1 D10
set pinio_config = 1,1,1,1
set pinio_box = 40,41,255,255
set box_user_1_name = VTX_ON/OFF
aux 0 40 8 900 2100 0 0
save
```

Camera switch command:

```
resource PINIO 2 D11
set pinio_config = 1,1,1,1
set pinio_box = 40,41,255,255
set box_user_2_name = CAM_SW
aux 1 41 9 900 2100 0 0
save
```

VTX ON/OFF Mode On

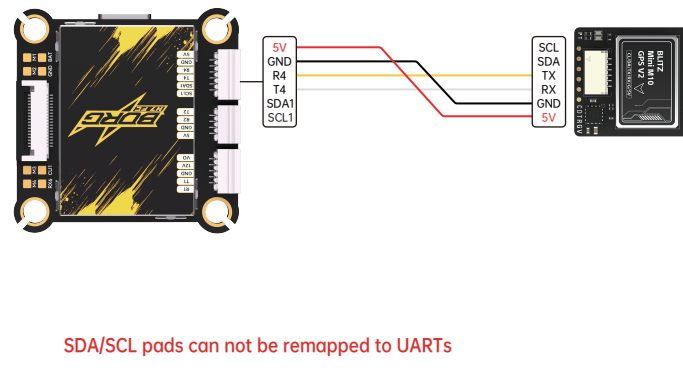
VTX ON/OFF Mode Off

Enable V1 Camera

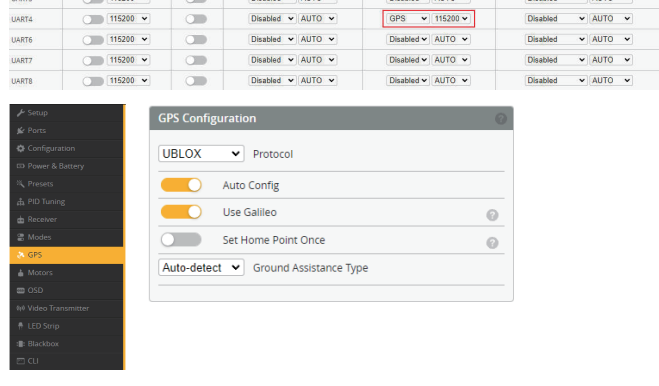
Enable V2 Camera

⚠ Note: When using dual cameras, ensure both cameras have the same format. Inconsistent formats may cause the OSD to fail to load. Please restoring firmware or restoring the default factory settings requires manually entering the following commands in Betaflight CLI:

GPS



SDA/SCL pads can not be remapped to UARTs



Dimensions/Mounting pattern

