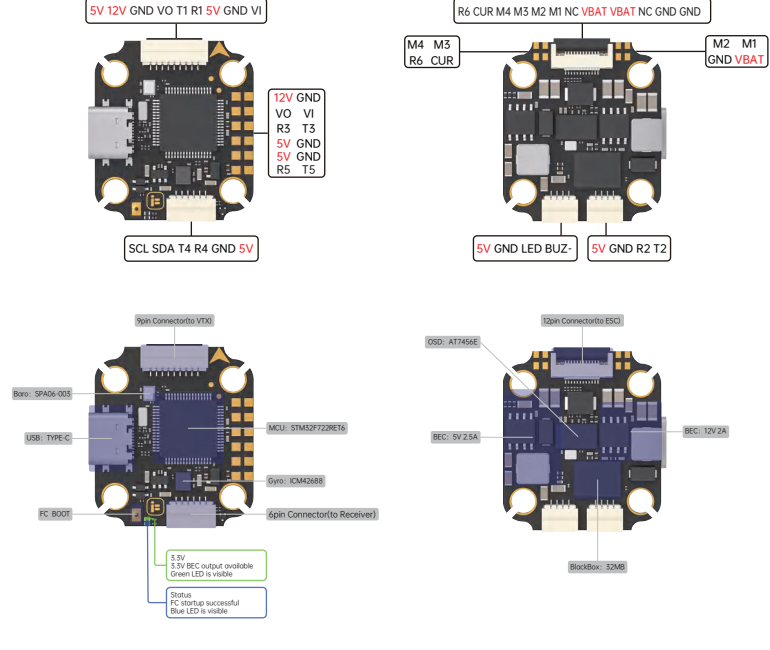


iFlight Borg F7 Mini FC Wiring diagram

Parameters:

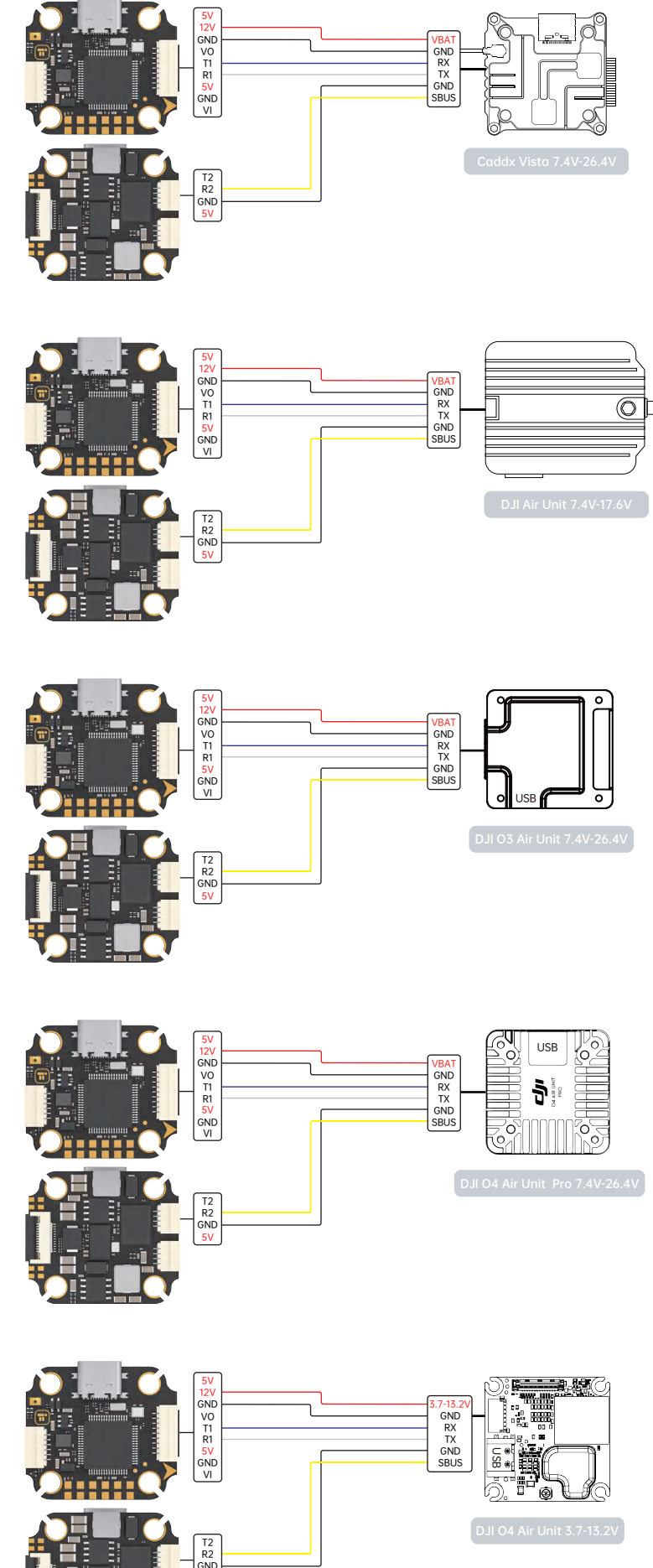
FC Specifications
Input voltage: 4-8S, Support LiHV battery
Dimensions: 27*50.6mm1
Mount pattern: 20*20mm4
Weight: 6.8g1
MCU: AT133722R6T6
Gyro: ICM42688
Baro: SPA06-003
OSD: AT7456E (LGA)
Blackbox: 52MB
Motor outputs: 4
IOC: Yes
BEC: 5V 2.5A, 12V 2A (12V with VTX switch)
LED Strip: Supported
Sleepen: Yes
VTX protocol: Support DJI MSP/SmartAudio/RCTrampHDZero
UARTS: 6
Uart: 6*UART (UART1, UART2, UART3, UART4, UART5, UART6)
UART1: VTX HD / Analog
UART2: Receiver
UART3: GPS or other sensors that require a serial port
UART4: GPS
UART5: GPS or other sensors that require a serial port
UART6: ESC Telemetry
VTX ON/OFF Mode Command:
resource PINIO 1 C0
set pinio_config = 1,1,1,1
set pinio_box = 40,41,255,255
set box_user_name = VTX_ON/OFF
aux 0 40 8 900 2100 0 0
save

Firmware:
Betaflight: iFLIGHT_BUTZ.F722
iNAV: iFLIGHT_BUTZ.F722



DJI Digital Transmitters: SUBS Protocol

Firmware Target: iFLIGHT_BUTZ.F722



Channel	Frequency	Power	Mode	Protocol	Receiver	Receiver Mode
CH1	115200	1000	Disabled	AUTO	Disabled	AUTO
CH2	115200	1000	Disabled	AUTO	Disabled	AUTO
CH3	115200	1000	Disabled	AUTO	Disabled	AUTO
CH4	115200	1000	Disabled	AUTO	Disabled	AUTO
CH5	115200	1000	Disabled	AUTO	Disabled	AUTO
CH6	115200	1000	Disabled	AUTO	Disabled	AUTO
CH7	115200	1000	Disabled	AUTO	Disabled	AUTO
CH8	115200	1000	Disabled	AUTO	Disabled	AUTO
CH9	115200	1000	Disabled	AUTO	Disabled	AUTO
CH10	115200	1000	Disabled	AUTO	Disabled	AUTO

Receiver

Serial (via UART) Receiver Mode

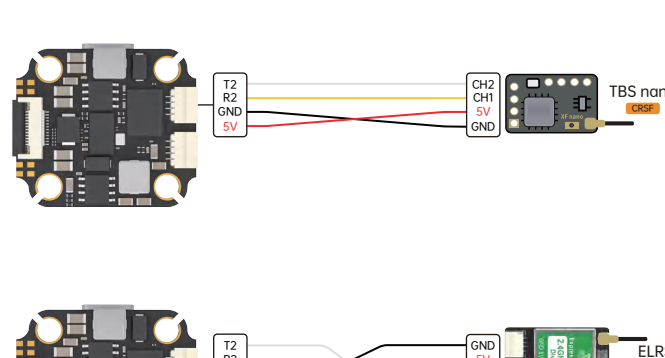
The UART for the receiver must be set to Serial Rx (in the Ports tab)

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

CRSF Serial Receiver Provider

- 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



Channel	Frequency	Power	Mode	Protocol	Receiver	Receiver Mode
CH1	115200	1000	Disabled	AUTO	Disabled	AUTO
CH2	115200	1000	Disabled	AUTO	Disabled	AUTO
CH3	115200	1000	Disabled	AUTO	Disabled	AUTO
CH4	115200	1000	Disabled	AUTO	Disabled	AUTO
CH5	115200	1000	Disabled	AUTO	Disabled	AUTO
CH6	115200	1000	Disabled	AUTO	Disabled	AUTO
CH7	115200	1000	Disabled	AUTO	Disabled	AUTO
CH8	115200	1000	Disabled	AUTO	Disabled	AUTO
CH9	115200	1000	Disabled	AUTO	Disabled	AUTO
CH10	115200	1000	Disabled	AUTO	Disabled	AUTO

Receiver

Serial (via UART) Receiver Mode

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

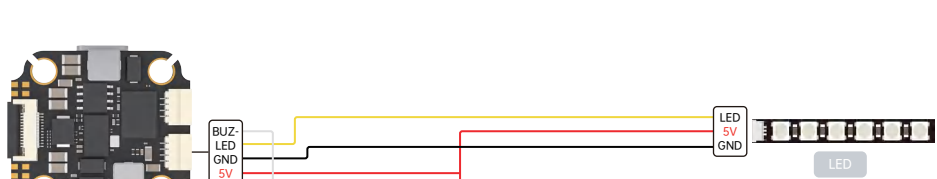
Select the correct data format from the drop-down, below:

CRSF Serial Receiver Provider

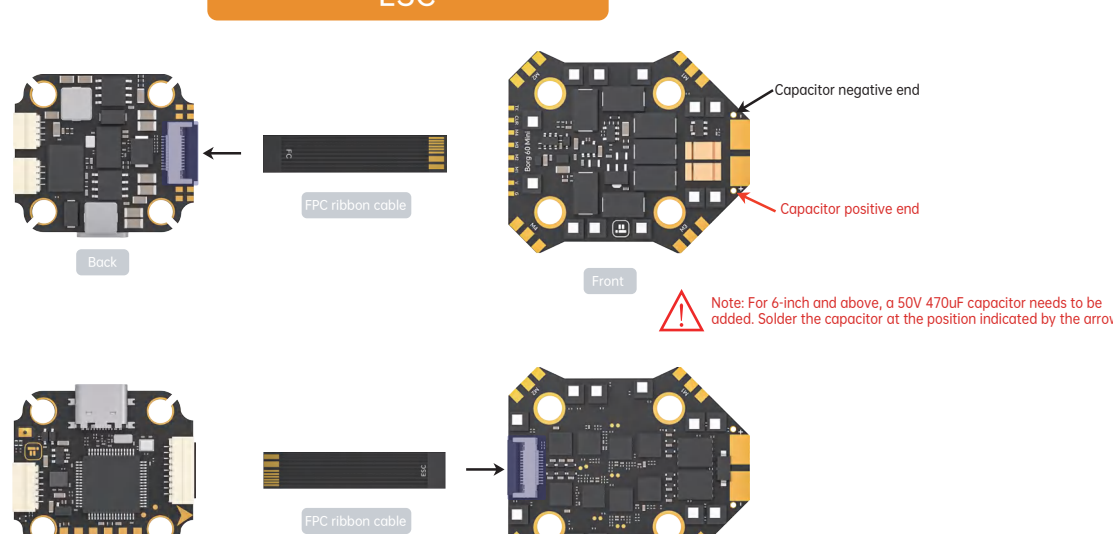
Telemetry

TELEMETRY Telemetry output

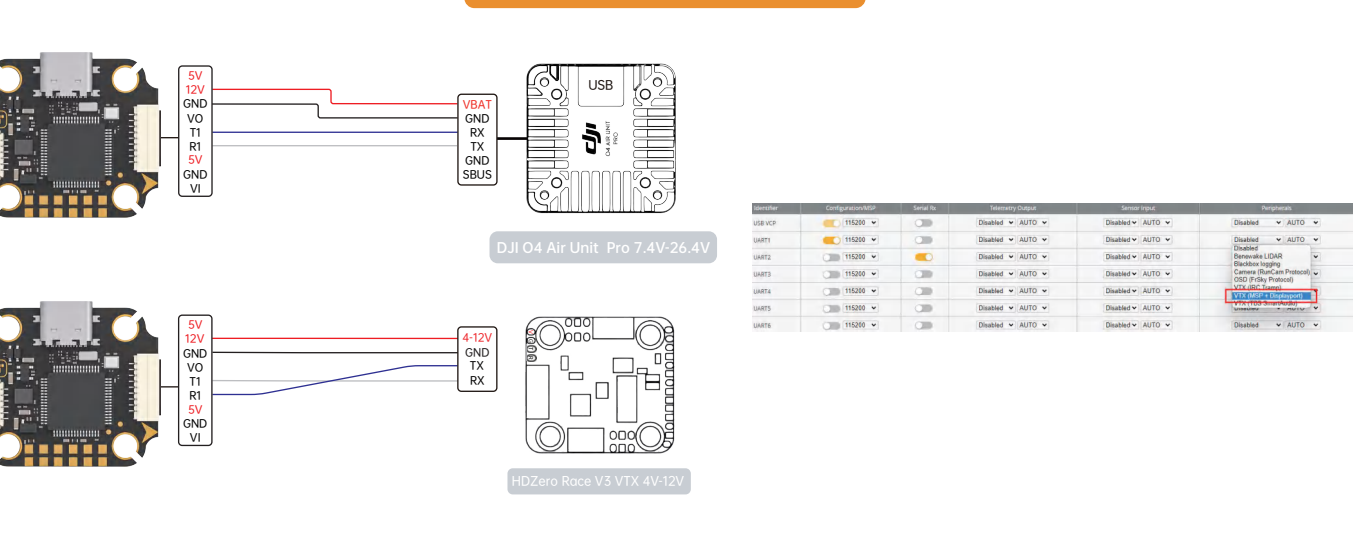
LED/BUZZER



ESC



VTX/CAM



Channel	Frequency	Power	Mode	Protocol	Receiver	Receiver Mode
CH1	115200	1000	Disabled	AUTO	Disabled	AUTO
CH2	115200	1000	Disabled	AUTO	Disabled	AUTO
CH3	115200	1000	Disabled	AUTO	Disabled	AUTO
CH4	115200	1000	Disabled	AUTO	Disabled	AUTO
CH5	115200	1000	Disabled	AUTO	Disabled	AUTO
CH6	115200	1000	Disabled	AUTO	Disabled	AUTO
CH7	115200	1000	Disabled	AUTO	Disabled	AUTO
CH8	115200	1000	Disabled	AUTO	Disabled	AUTO
CH9	115200	1000	Disabled	AUTO	Disabled	AUTO
CH10	115200	1000	Disabled	AUTO	Disabled	AUTO

VTX ON/OFF Mode On

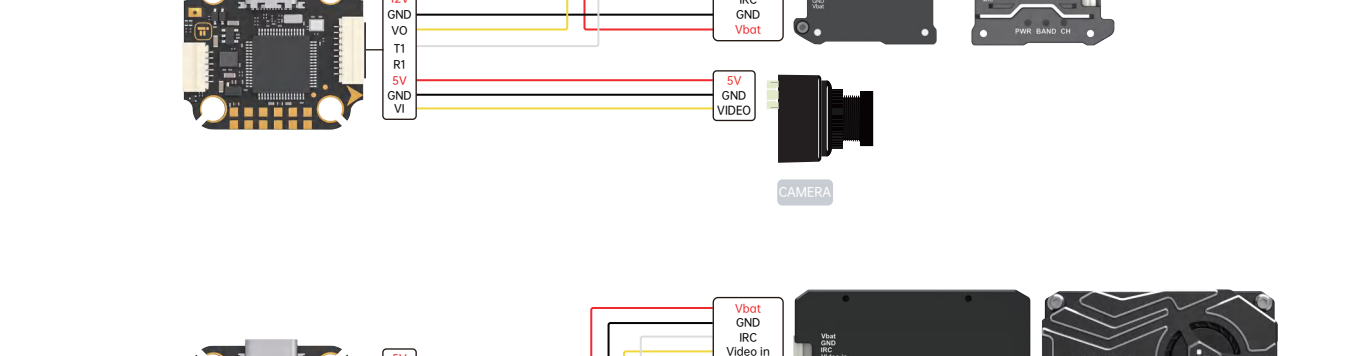
VTX ON/OFF Mode Off

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 C0
set pinio_config = 1,1,1,1
set pinio_box = 40,41,255,255
set box_user_name = 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 remapped to UARTS

Dimensions/Mounting pattern

