iFlight Borg F7 AIO（RX）Wiring diagram

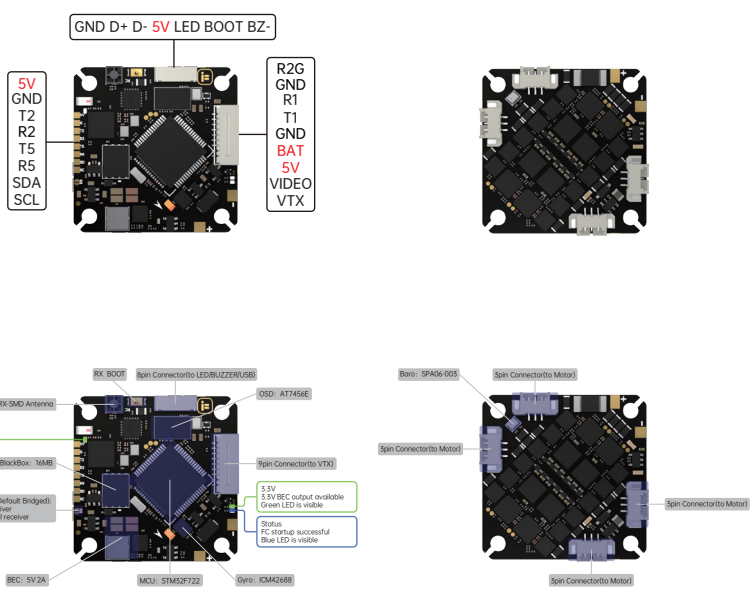
Parameters:

FC Specifications
Input voltage：2-4S. Support LIHV battery
Dimensions：32*32mm±1
Mount pattern：25.5*25.5.φ3
Weight：7g±1
MCU：STM32F722
Gyro：ICM42688
Baro：SPA06-003
OSD：AT7456E
BlackBox：16MB
Motor outputs: 4
I2C：Supported
BEC：5V 2A
LED Strip：Supported
Beeper：Yes
VTX protocol：Support DJI MSP/Smartaudio/IRCTramp/HDZero
UARTS: 4
Uart：4*UART（UART1、UART2、UART5、UART6）
UART1：VTX HD / Analog
UART2：Built-in ELRS receiver/SBUS input
UART5：GPS or other sensors that require a serial port
UART6：ESC Telemet
Firmware target：IFLIGHT_BLITZ_F722_X1（Betaflight）

ESC Specifications:
MCU：STM32G071
Driver：FD6288
Input voltage：2-4S. Support LIHV battery
Output current：12A Continuous
ESC Firmware：IFLIGHT BLITZ G3 -Rev. 32.9
Current Sensor Rate：200（1/10mV/A）
BEC：N/A
Telemetry: Supported (AIO Wires have been connected, set the sensor input of UART6 to ESC to use)
Bidirectional DSHOT: Supported
Protocol: Supports DShot150/300/600、MultiShot、OneShot
Firmware: BL32 (32bit ESC)

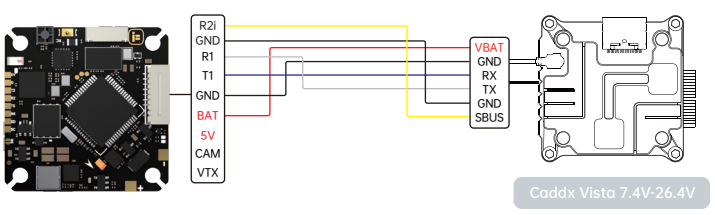
Receiver Specification
MCU：ESP8285
RF：SX1281
Receiver Type：2.4GHz
Telemetry power：17mW (12.3dBm)
LNA：N/A
Firmware：iFlight 2.4GHz Nano RX
Lua Script：iFlight 2.4GHz Nano
TCXO: Yes

Firmware:
FC Firmware：IFLIGHT_BLITZ_F722_X1
ESC Firmware：IFLIGHT BLITZ G3 -Rev. 32.9
Receiver Firmware：IFLIGHT 2.4GHz Nano RX

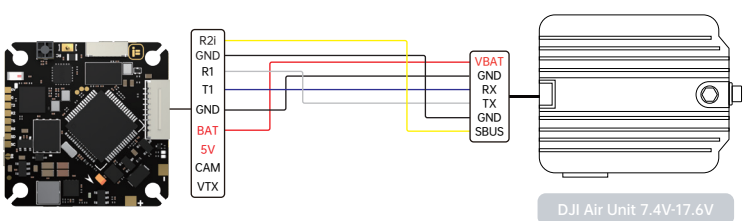


DJI Digital Transmiters

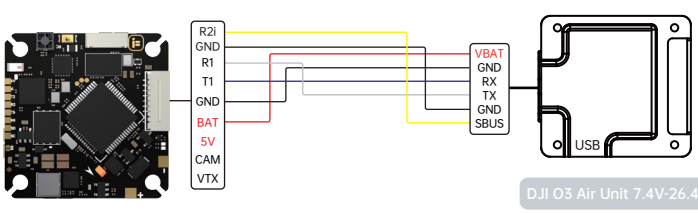
Firmware Target：IFLIGHT_BLITZ_F722_X1



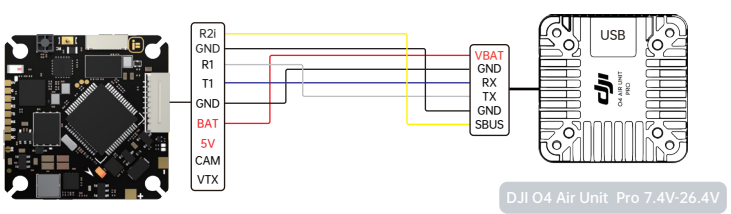
Caddx Vista 7.4V-26.4V



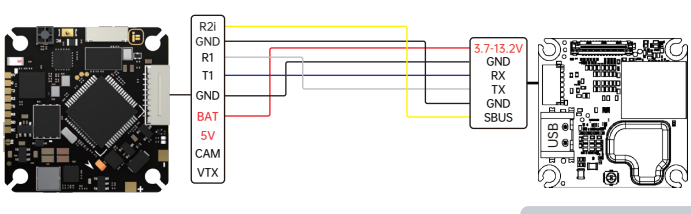
DJI Air Unit 7.4V-17.6V



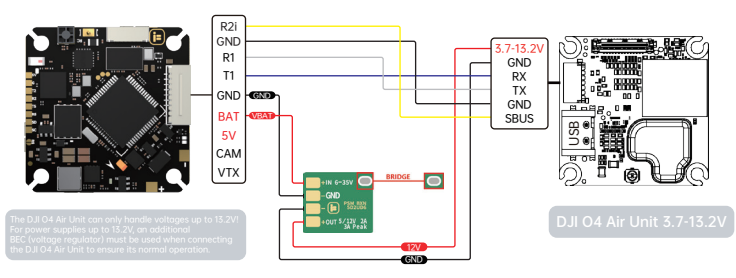
DJI O3 Air Unit 7.4V-26.4V



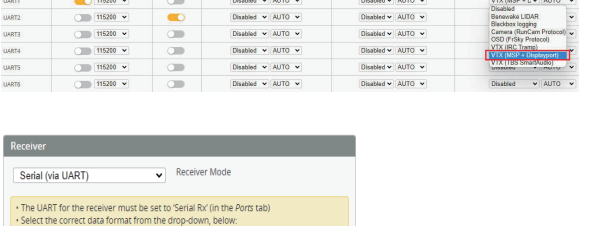
DJI O4 Air Unit Pro 7.4V-26.4V

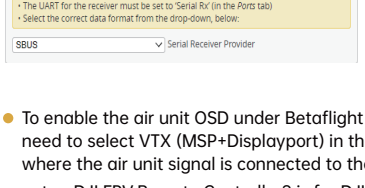


DJI O4 Air Unit 3.7-13.2V



DJI O4 Air Unit 3.7-13.2V

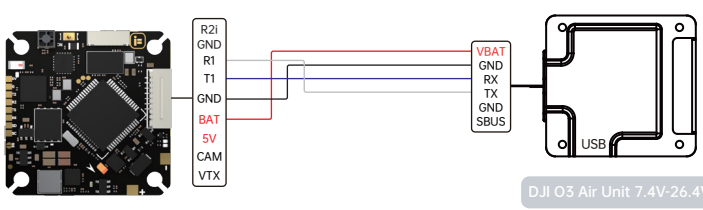




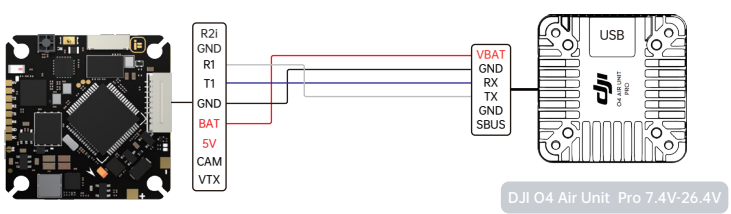
- To enable the air unit OSD under Betaflight 4.4 version, you need to select VTX (MSP+Displayport) in the peripheral port where the air unit signal is connected to the port interface.
- note：DJI FPV Remote Controller2 is for DJI O3 Air Unit
  DJI FPV Remote Controller is for DJI Air Unit and Vista
-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

Any other Receiver

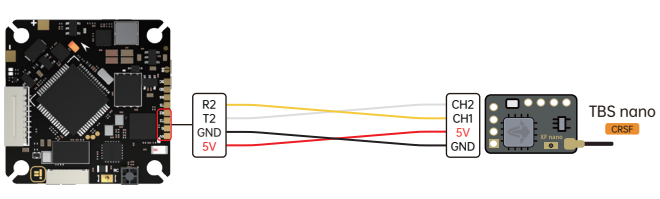
Firmware Target：IFLIGHT_BLITZ_F722_X1

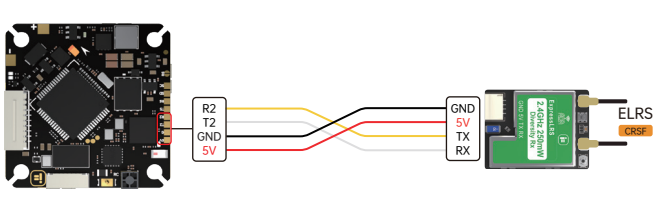


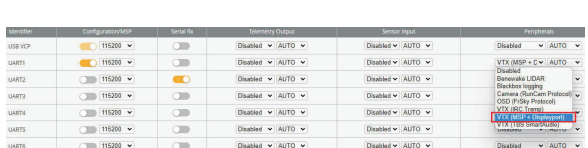
DJI O3 Air Unit 7.4V-26.4V

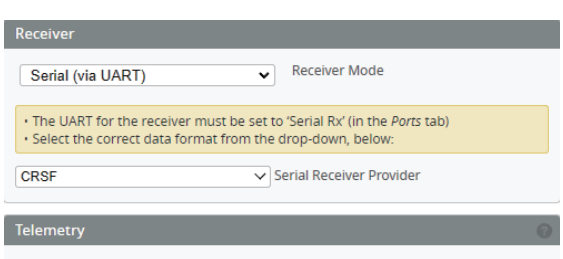


DJI O4 Air Unit Pro 7.4V-26.4V

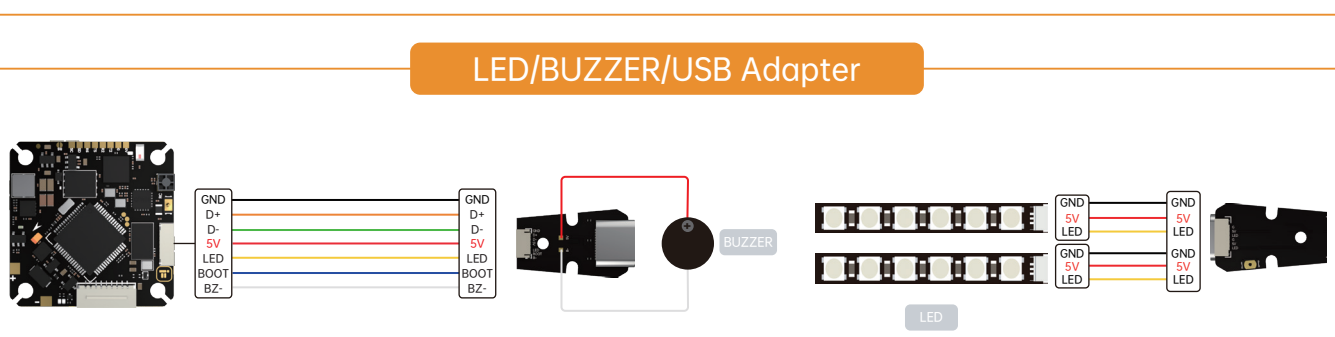




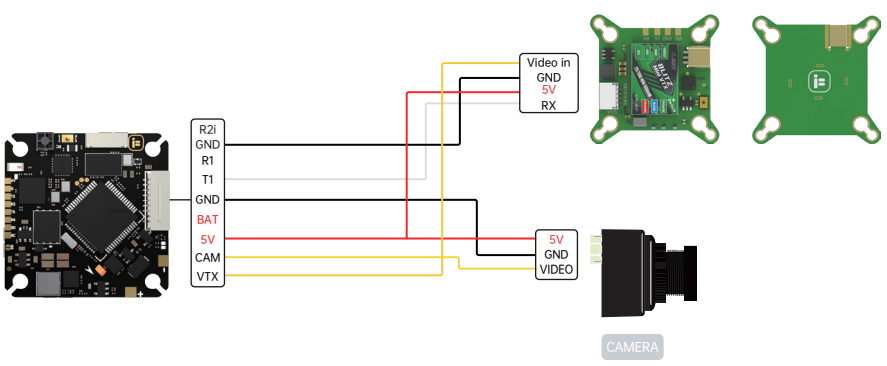


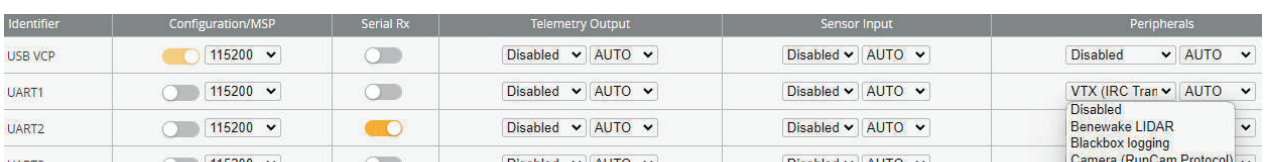


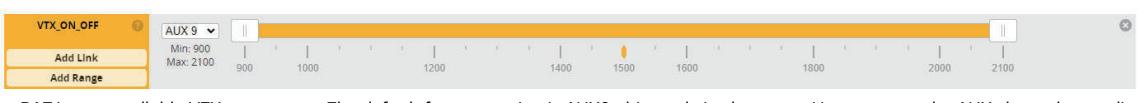
LED/BUZZER/USB Adapter



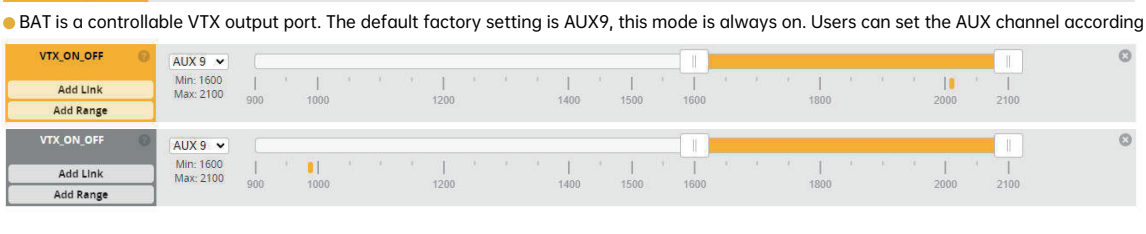
VTX/CAM







- BAT is a controllable VTX output port. The default factory setting is AUX9, this mode is always on. Users can set the AUX channel according to actual needs.

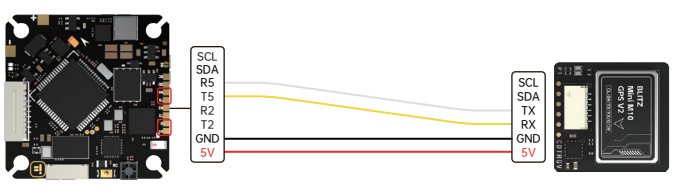


- VTX_ON_OFF Mode On
- VTX_ON_OFF Mode Off
- To control VTX on/off, please drag the range to 1600-2000. If the icon is yellow, it is on, and if it is gray, it is off.

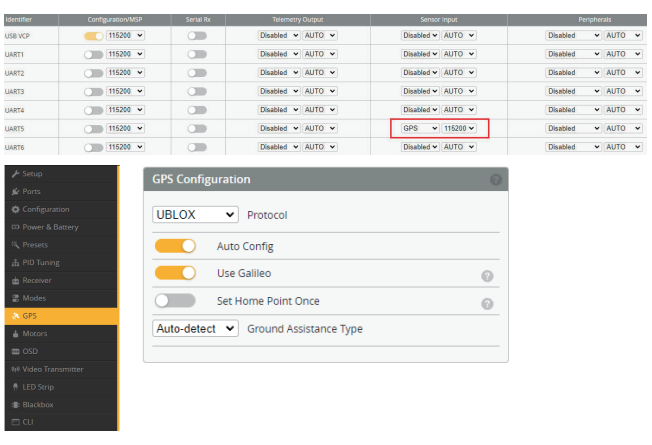
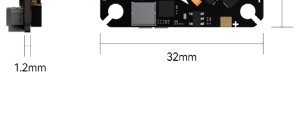
⚠ Reflashing firmware or restoring the default factory settings requires manually entering the following commands in Betaflight CLI to re-enable VTX switch control:

```
resource PINIO 1 C0
set pinio_config = 1,1,1,1
set pinio_box = 40,41,255,255
set box_user_1_name = VTX_ON_OFF
aux 0 40 8 900 2100 0 0
save
```

GPS



SDA/SCL pads can not be remapped to UARTs



Dimensions/Mounting pattern