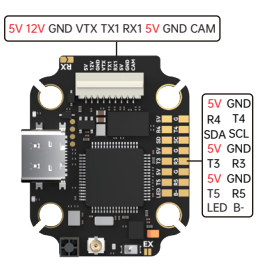
iFlight Borg Mini F7 RX Wiring diagram

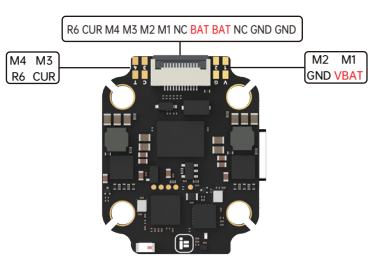
Parameters:

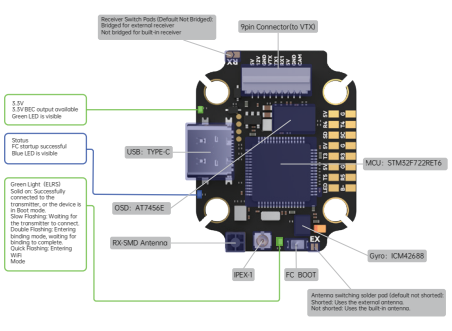
FC Specifications
Input voltage：4-8S Support LIHV battery
Dimensions：34*28.5mm±1
Mount pattern：20*20φ4
Weight：6.8g±1
MCU：STM32F722RET6
Gyro：ICM42688
气压计：SPA06-003
OSD：AT7456E（LGA）
BlackBox：16MB
Motor outputs：4
I2C：Supported
BEC：5V 2.5A，12V 2A（12V with VTX switch）
LED Strip：Supported
Beeper：Yes
VTX protocol：Support DJI MSP/Smartaudio/IRCTramp/HDZero
UARTS：6
Uart：6*UART（UART1、UART2、UART3、UART4、UART5、UART6）
UART1：VTX HD / Analog
UART2：ELRS Receiver
UART3：GPS or other sensors that require a serial port
UART4：GPS or other sensors that require a serial port
UART5：GPS or other sensors that require a serial port
UART6：ESC Telemet
VTX_ON_OFF Mode Command：
resource PINIO 1 PC0
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

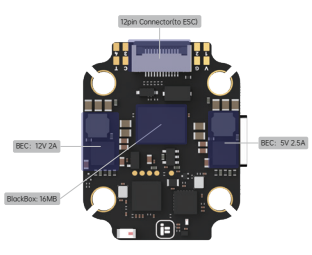
Firmware：
Betaflight：IFLIGHT_BLITZ_F722
Receiver Firmware：IFLIGHT 2.4GHz Nano RX

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



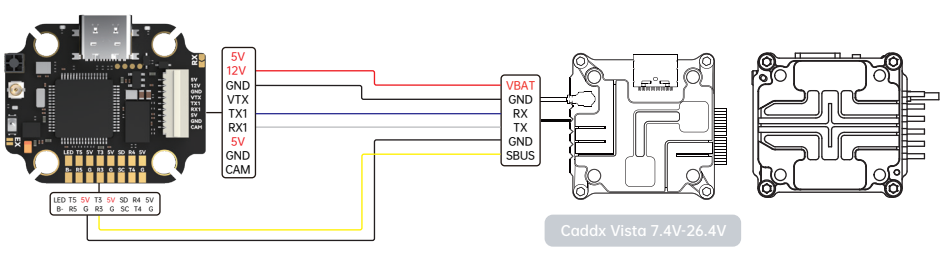




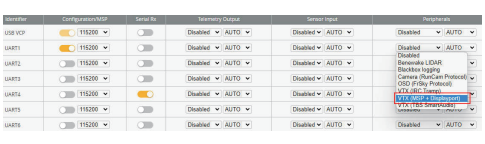


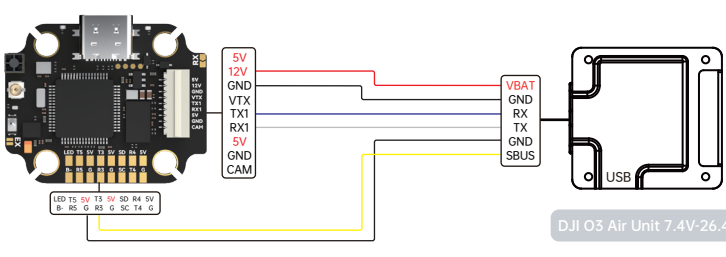
DJI Digital Transmiters: SUBS Protocol

Firmware Target：IFLIGHT_BLITZ_F722

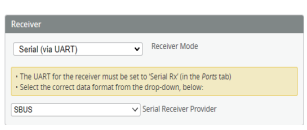


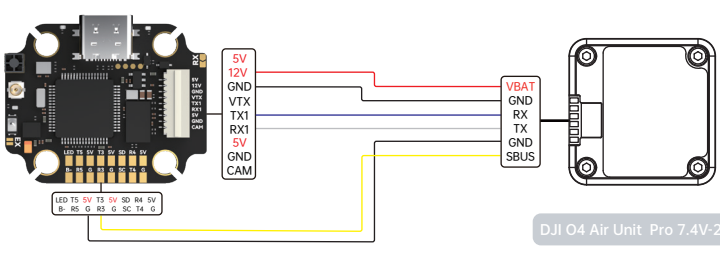
Caddx Vista 7.4V-26.4V



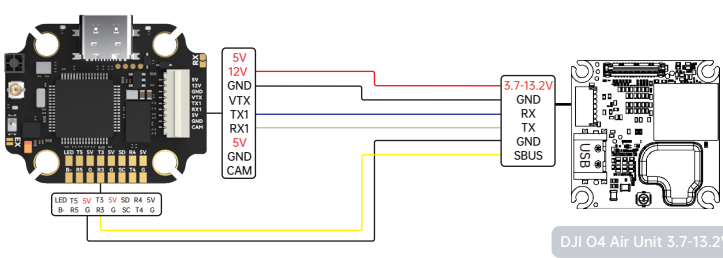


DJI O3 Air Unit 7.4V-26.4V





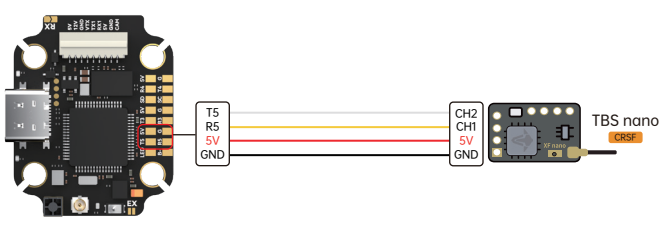
DJI O4 Air Unit Pro 7.4V-26.4V

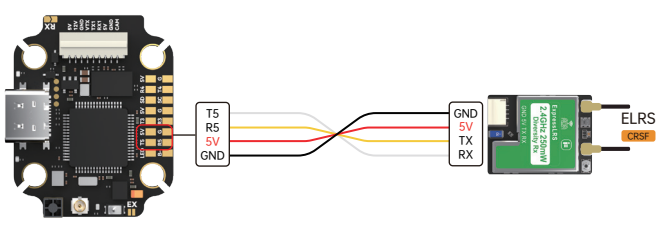


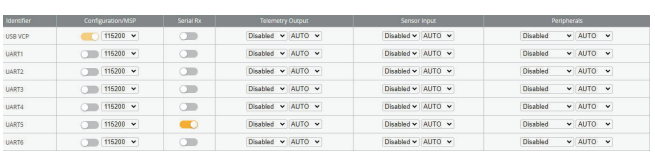
DJI O4 Air Unit 3.7-13.2V

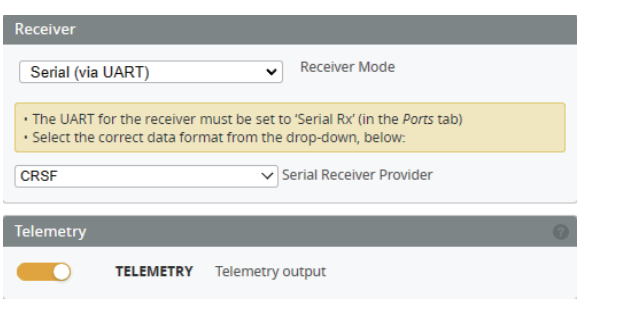
- To enable the air unit OSD under Betaflight 4.4 version, you need to select VTX (MSP+Displayport) in the peripheral port where the air unit signal is connected to the port interface.
- note：DJI FPV Remote Controller2 is for DJI O3 Air Unit
  DJI FPV Remote Controller is for DJI Air Unit and Vista
- 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

Others Receivers(TBS/ELRS): CRSF Protocol

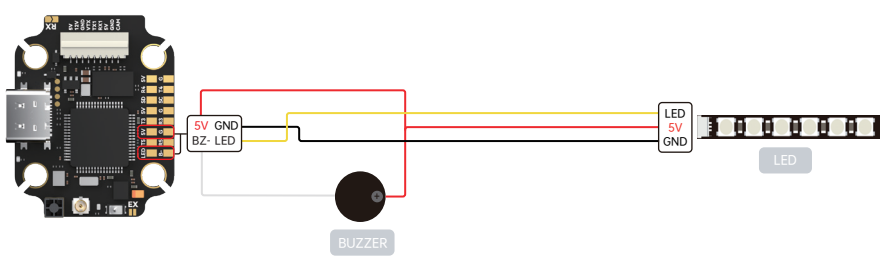




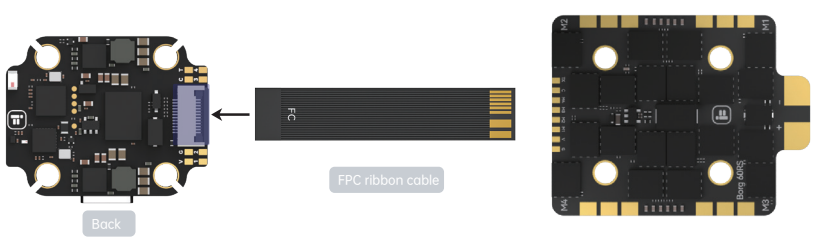


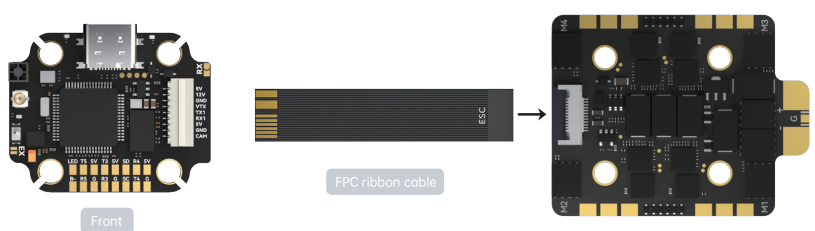


LED/BUZZER



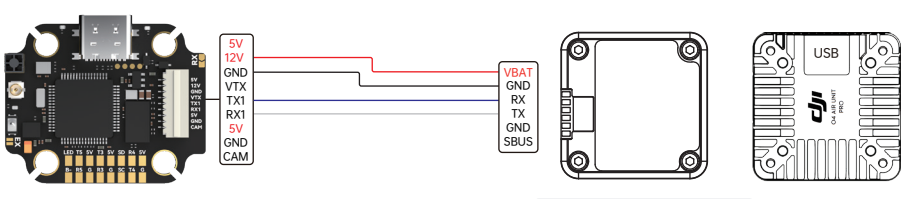
ESC



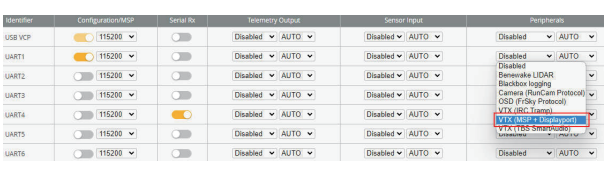


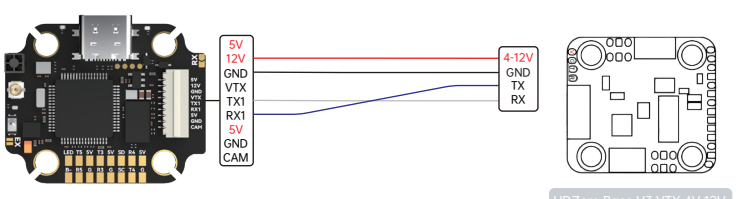
Note: If using an ESC from another brand, please ensure the wiring is connected correctly.

VTX/CAM

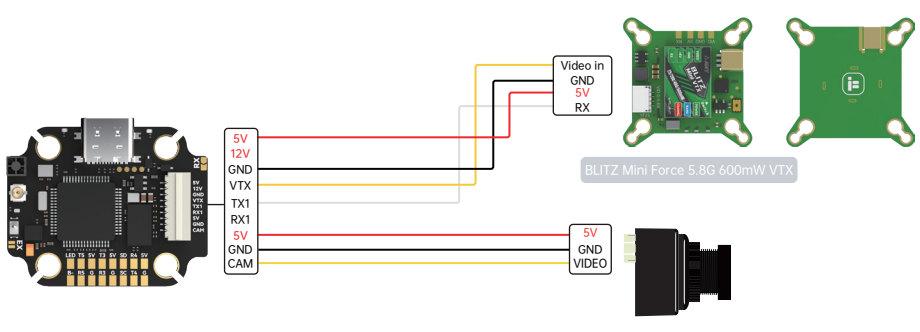


DJI O4 Air Unit Pro 7.4V-26.4V



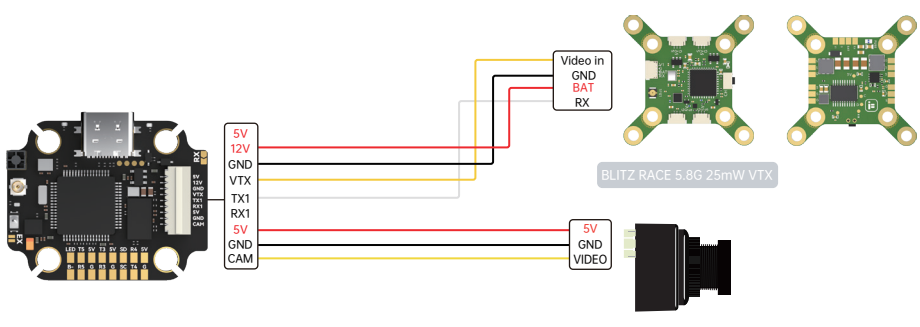


HDZero Race V3 VTX 4V-12V



BLITZ Mini Force 5.8G 600mW VTX

CAMERA

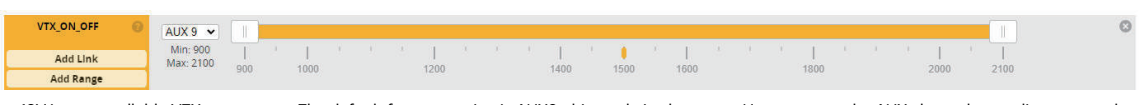


BLITZ RACE 5.8G 25mW VTX

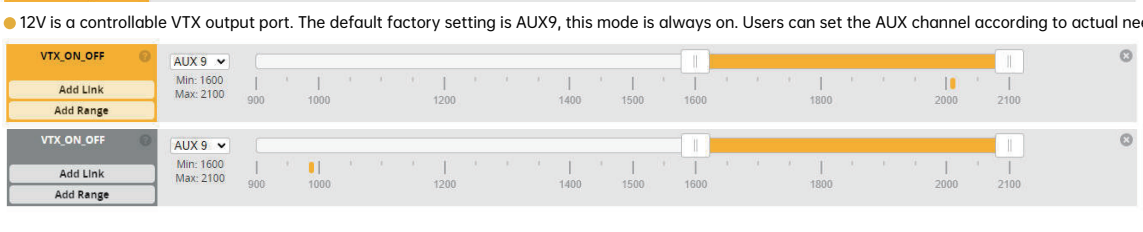
CAMERA

Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	115200		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART1	115200		Disabled AUTO	Disabled AUTO	VTX (IRC Tran 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	Disabled AUTO

Disabled
Benewake LIDAR
Blackbox logging
Camera (RunCam Protocol)
OSD (FrSky Protocol)
VTX (IRC Tramp)
VTX (MSP + Displayport)
VTX (TBS SmartAudio)



- 12V 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.

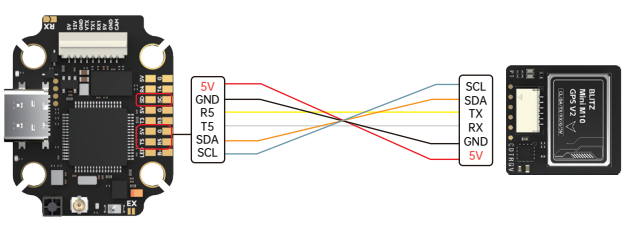


- VTX_ON_OFF Mode On
- VTX_ON_OFF Mode Off
- To control VTX on/off, please drag the range to 1600-2000. If the icon is yellow, it is on, and if it is gray, it is off.

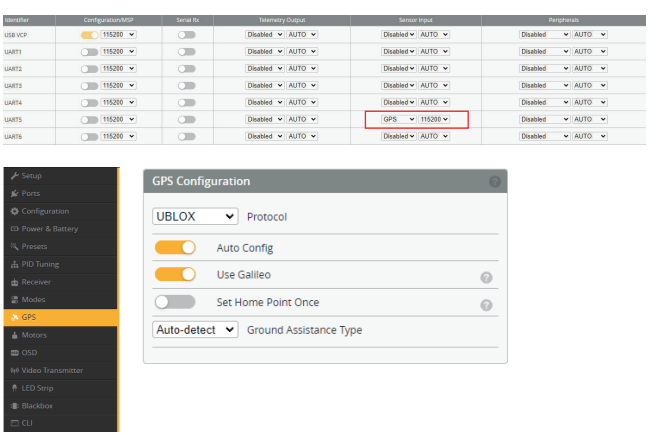
⚠ Reflashing firmware or restoring the default factory settings requires manually entering the following commands in Betaflight CLI to re-enable VTX switch control:

resource PINIO 1 PC0
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

