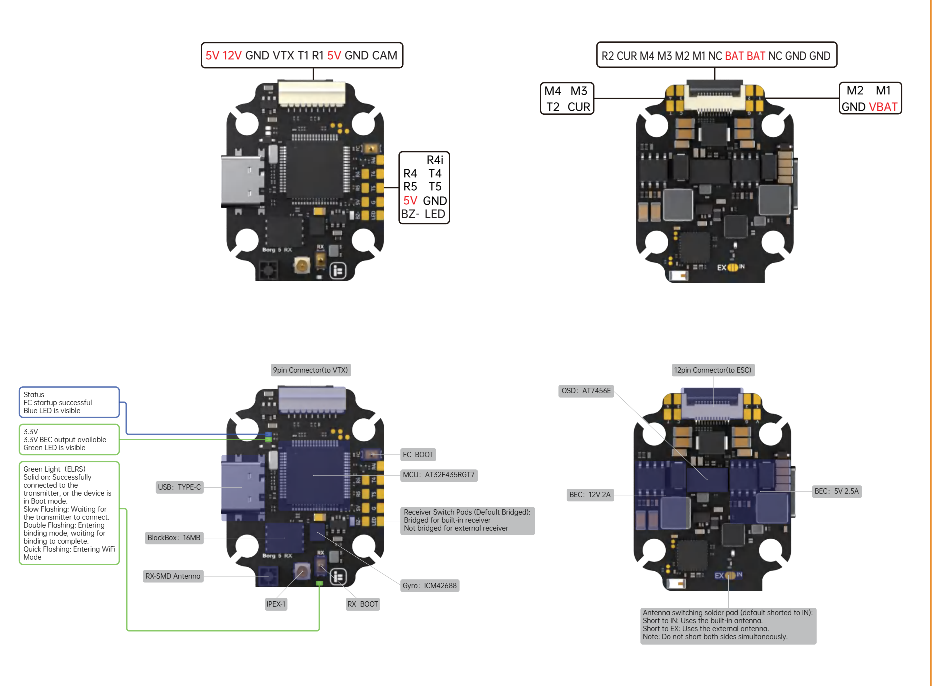
iFlight Borg 5S RX FC Wiring diagram

Parameters:

FC Specifications
Input voltage: 4-8S. Support LIHV battery
Dimensions: 34*27mm±1
Mount pattern: 20*20φ4
Weight: 6.8g±1
MCU: AT32F435RGT7
Receiver: Built-in ELRS 2.4GHz
Gyro: ICM42688
Baro: N/A
OSD: AT7456E
BlackBox: 16MB
Motor outputs: 4
I2C: Not 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: 4
Uart: 4*UART (UART1、UART2、UART4、UART5)
UART1: VTX HD / Analog
UART2: ESC Telemet
UART4: Built-in ELRS receiver/SBUS input
UART5: GPS or other sensors that require a serial port
VTX_ON_OFF Mode Command:
resource PINIO 1 C14
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

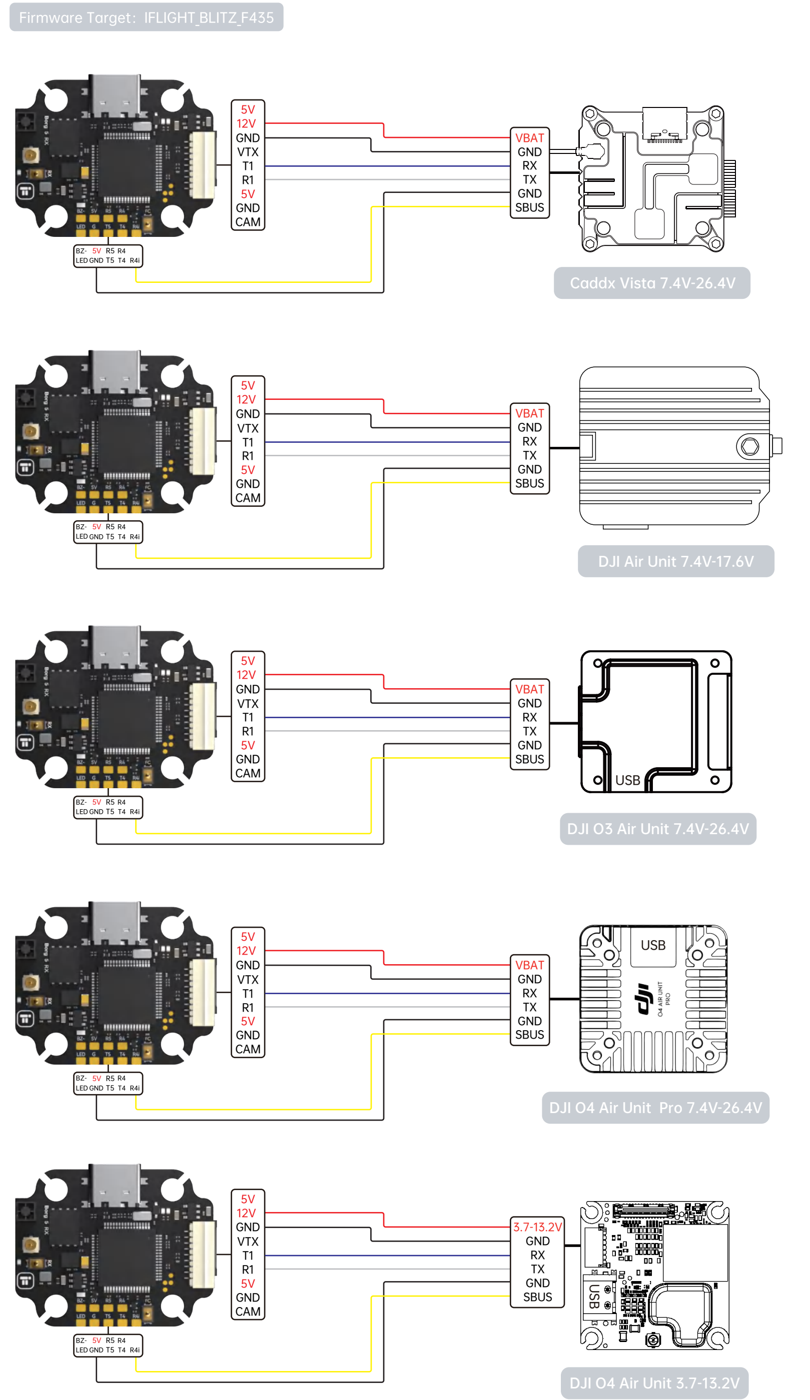
Firmware:
Betaflight: IFLIGHT_BLITZ_F435
Receiver Firmware: IFLIGHT 2.4GHz Nano RX

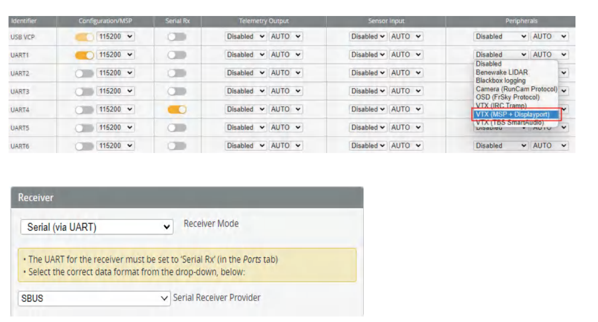
Receiver Specification
MCU: ESP8285
RF: SX1281
Receiver Type: 2.4GHz
Telemetry power: 17mW (12.3dBm)
LNA: N/A
Firmware: iFlight 2.4GHz Nano RX
Lua Script: iFlight 2.4GHz Nano
TCXO: Yes



DJI Digital Transmiters: SUBS Protocol

Firmware Target: IFLIGHT_BLITZ_F435

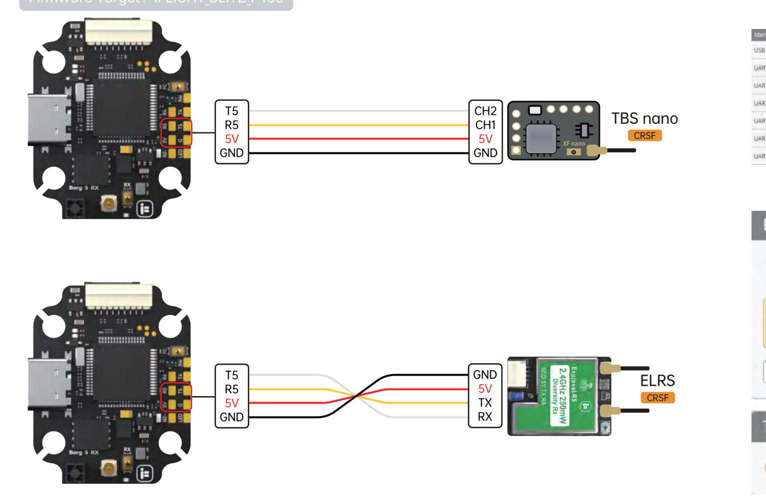


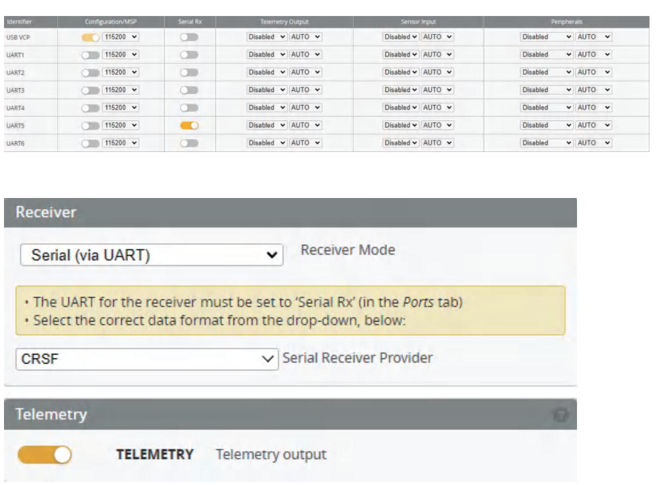


- To enable the air unit OSD under Betaflight 4.4 version, you need to select VTX (MSP+Displayport) in the peripheral port where the air unit signal is connected to the port interface.
- note: DJI FPV Remote Controller2 is for DJI O3 Air Unit
  DJI FPV Remote Controller is for DJI Air Unit and Vista
- 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 Beatafllght Configurator CLI then hit enter.
  Use"save"and hit enter to save the changes.
  Default: sbus_baud_fast=off, Goggle protocol set to NORMAL

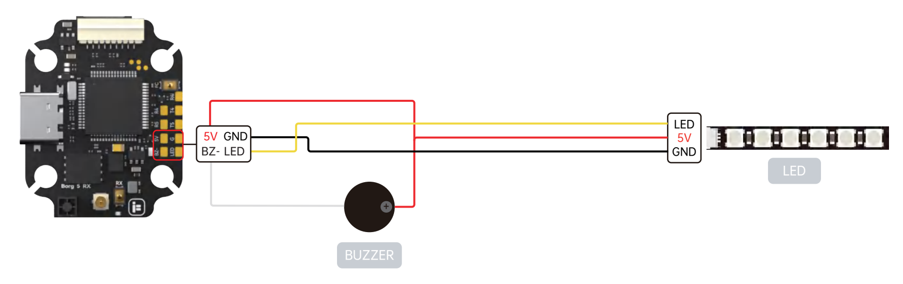
Others Receivers(TBS/ELRS): CRSF Protocol

Firmware Target: IFLIGHT_BLITZ_F435

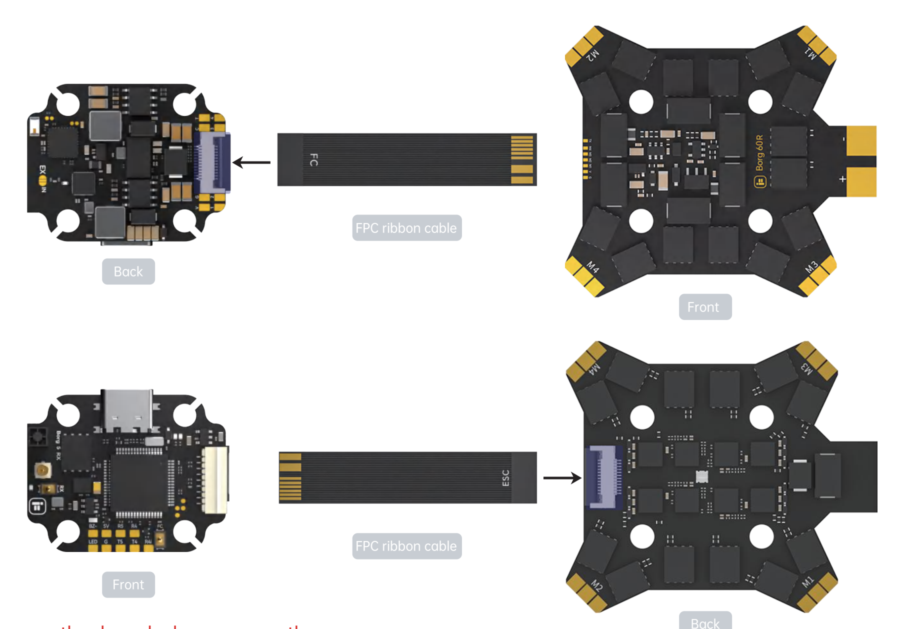




LED/BUZZER

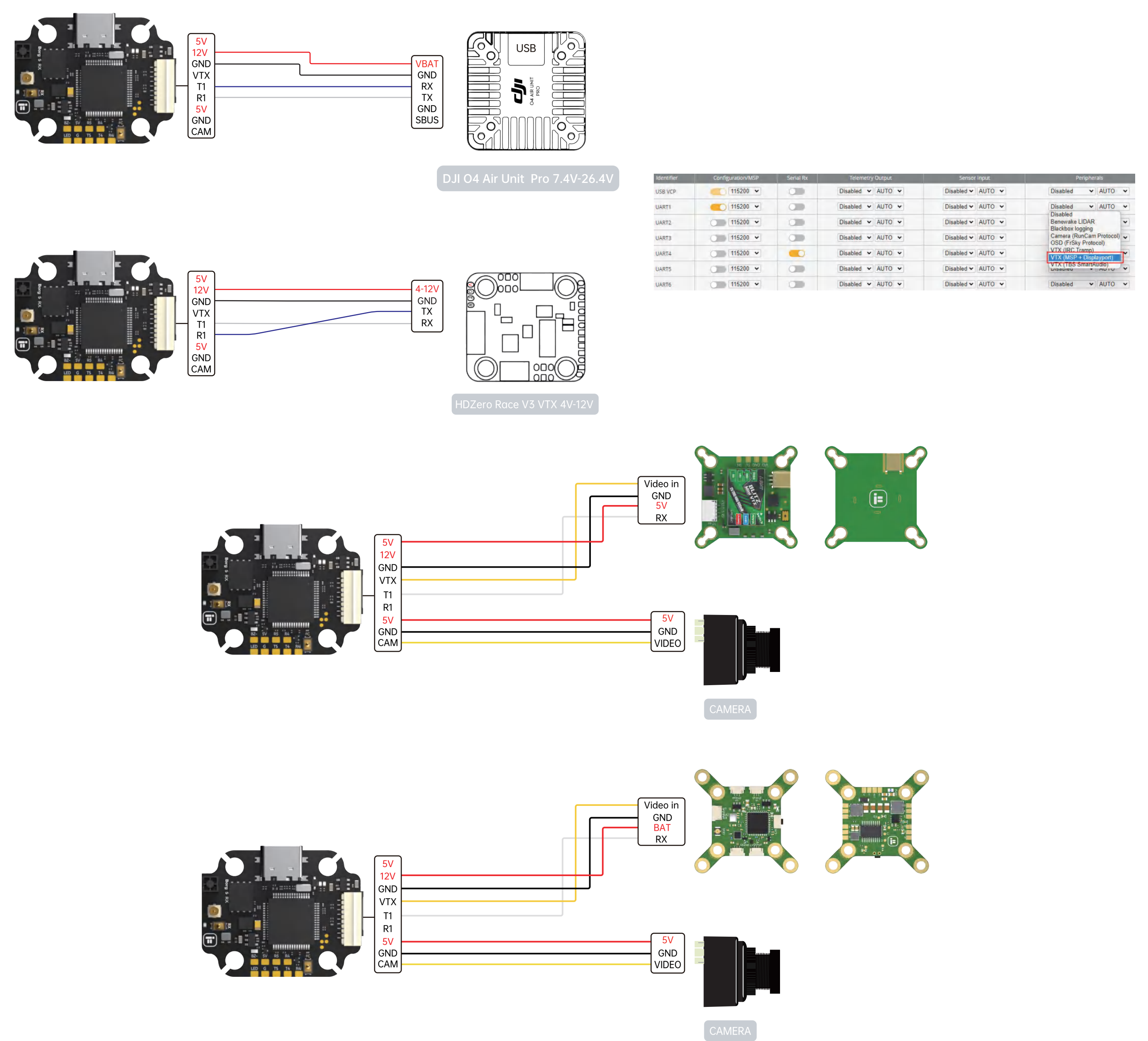


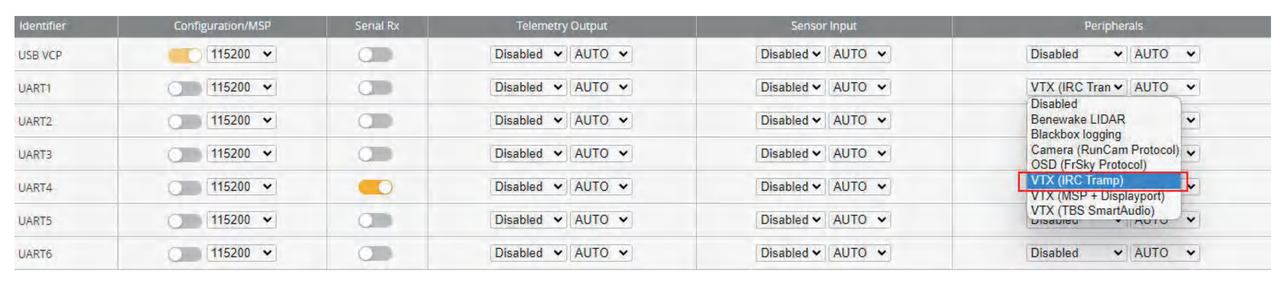
ESC

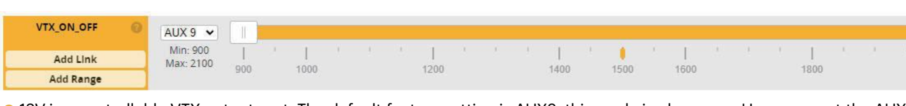


Note: If using an ESC from another brand, please ensure the wiring is connected correctly.

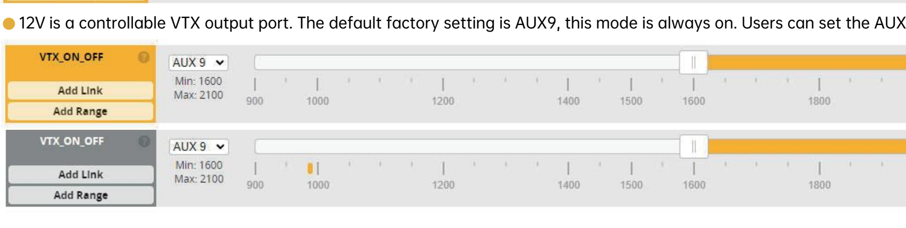
VTX/CAM







- 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 C14
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