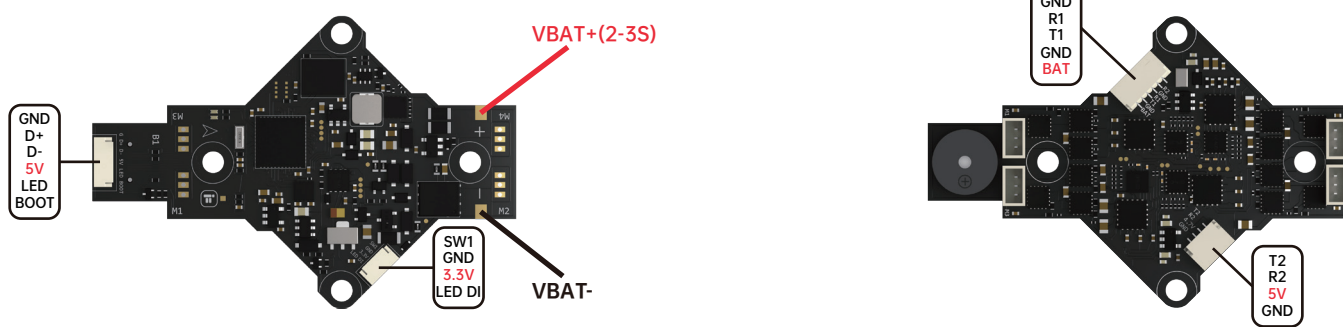
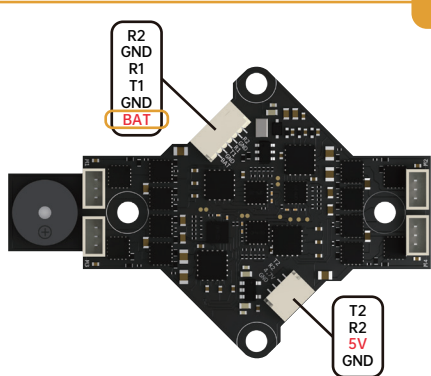


# Defender 16/20 F411 AIO Wiring Diagram

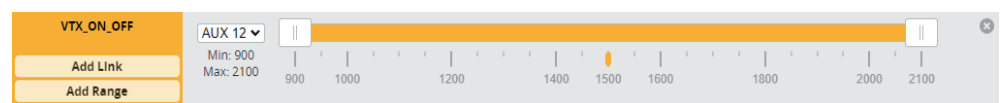


## Notice

FC Firmware: iFLIGHT DEFENDER F411  
ESC Firmware: Q-H-50 - Bluejay, 0.16

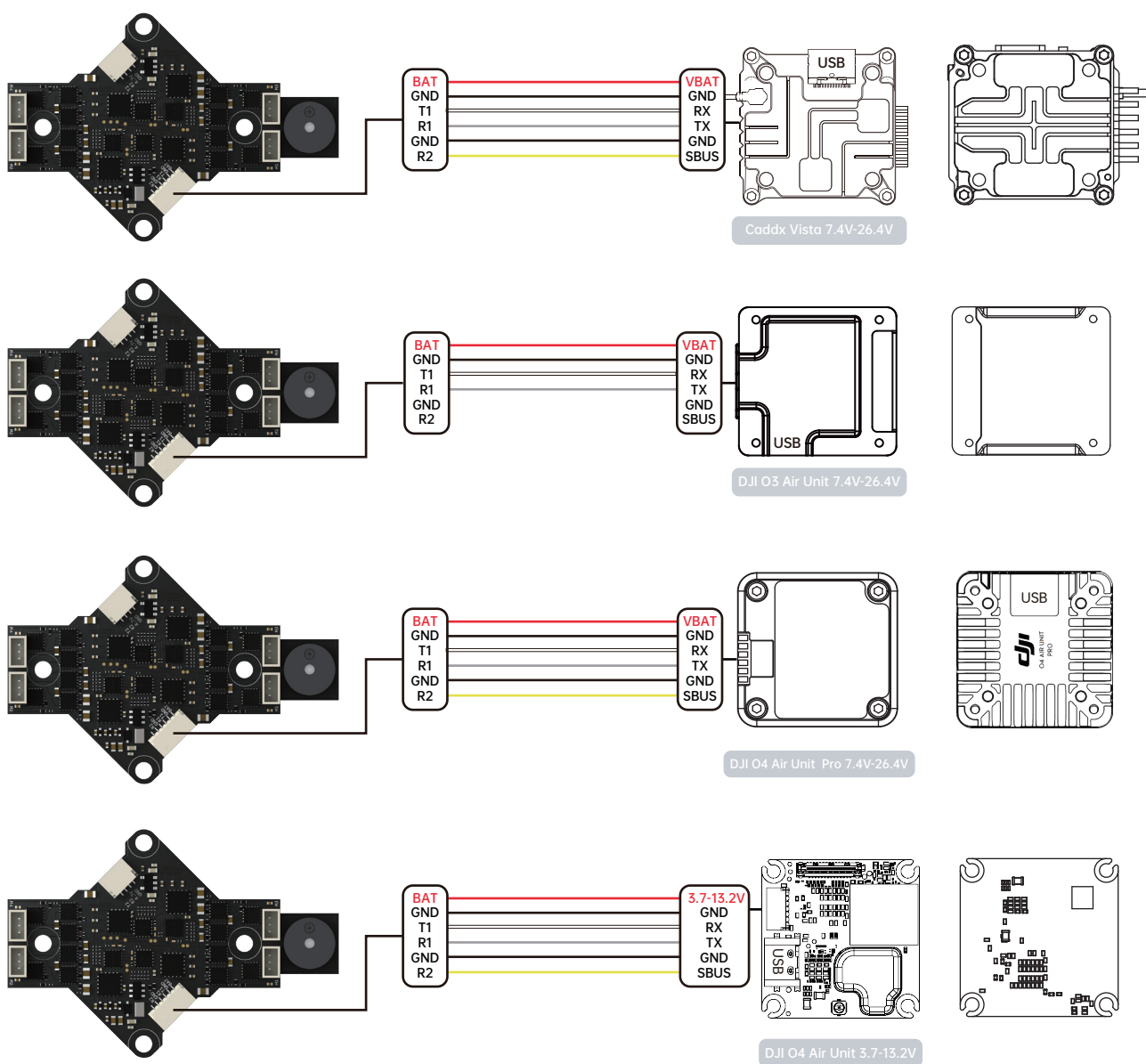


BAT is a controllable output port. When the DJI Air Unit or any VTX is connected to BAT, ensure that VTX ON OFF is always enable in Betaflight (place the AUX in any idle one), and set the AUX channel corresponding to the remote control switch if you wanna the VTX power to be controllable.



## DJI Digital Transmitters: SUBS Protocol

To use the subs signal receiver, the RX2 inverted needs to be turned on in Betaflight mode.

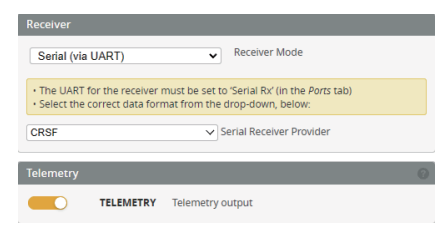
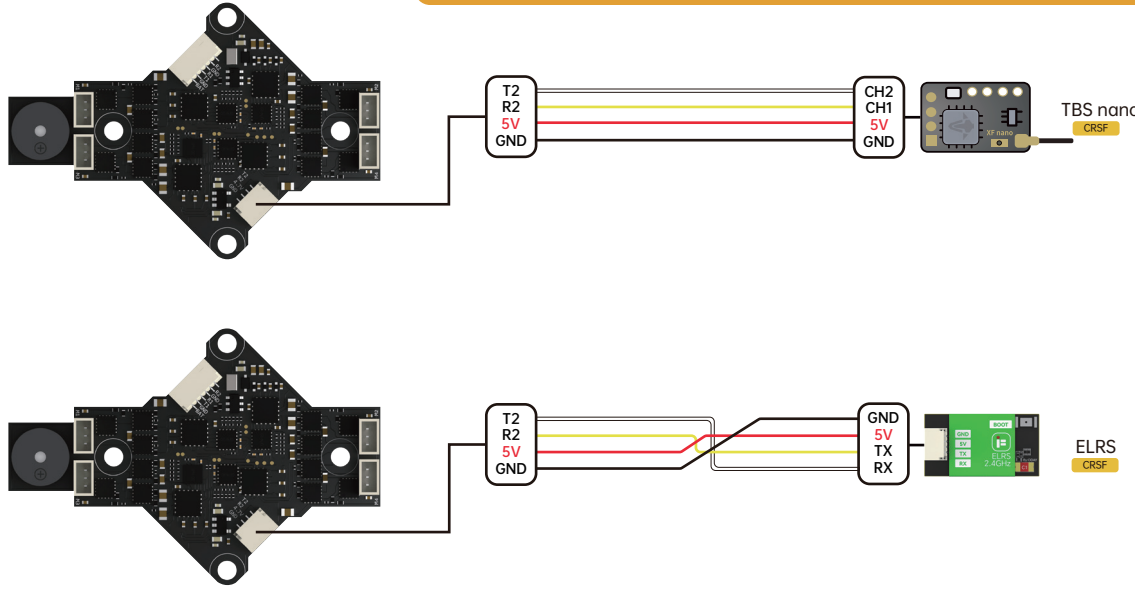


| Receiver | Configuration | Serial Rx | Serial Tx | Serial Rx | Serial Tx | Receiver |
|----------|---------------|-----------|-----------|-----------|-----------|----------|
| UART1    | 115200        | 3         | Disabled  | AUTO      | Disabled  | AUTO     |
| UART2    | 115200        | 3         | Disabled  | AUTO      | Disabled  | AUTO     |
| UART3    | 115200        | 3         | Disabled  | AUTO      | Disabled  | AUTO     |

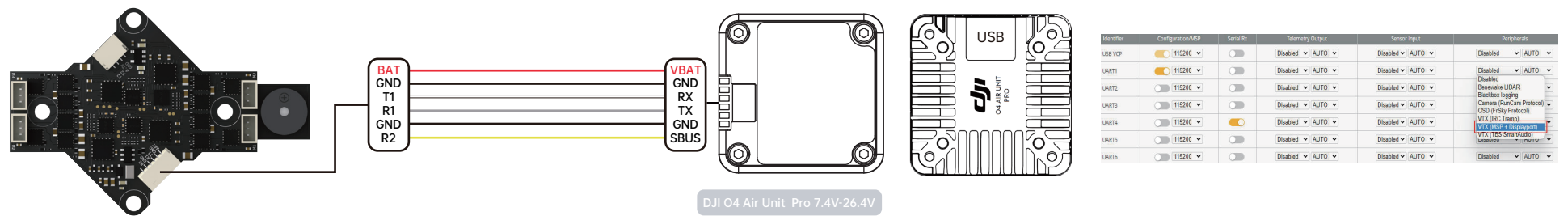


- To enable the air unit OSD under Betaflight 4.4 version, you need to select VTX (MSP+Displayport) in the peripheral port where the air unit signal is connected to the port interface.
- Please check your protocols, otherwise your DJI Radio won't input signals!  
DJI Goggle protocol and Betaflight protocol has to match!  
For lower signal latency use the SUBS 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

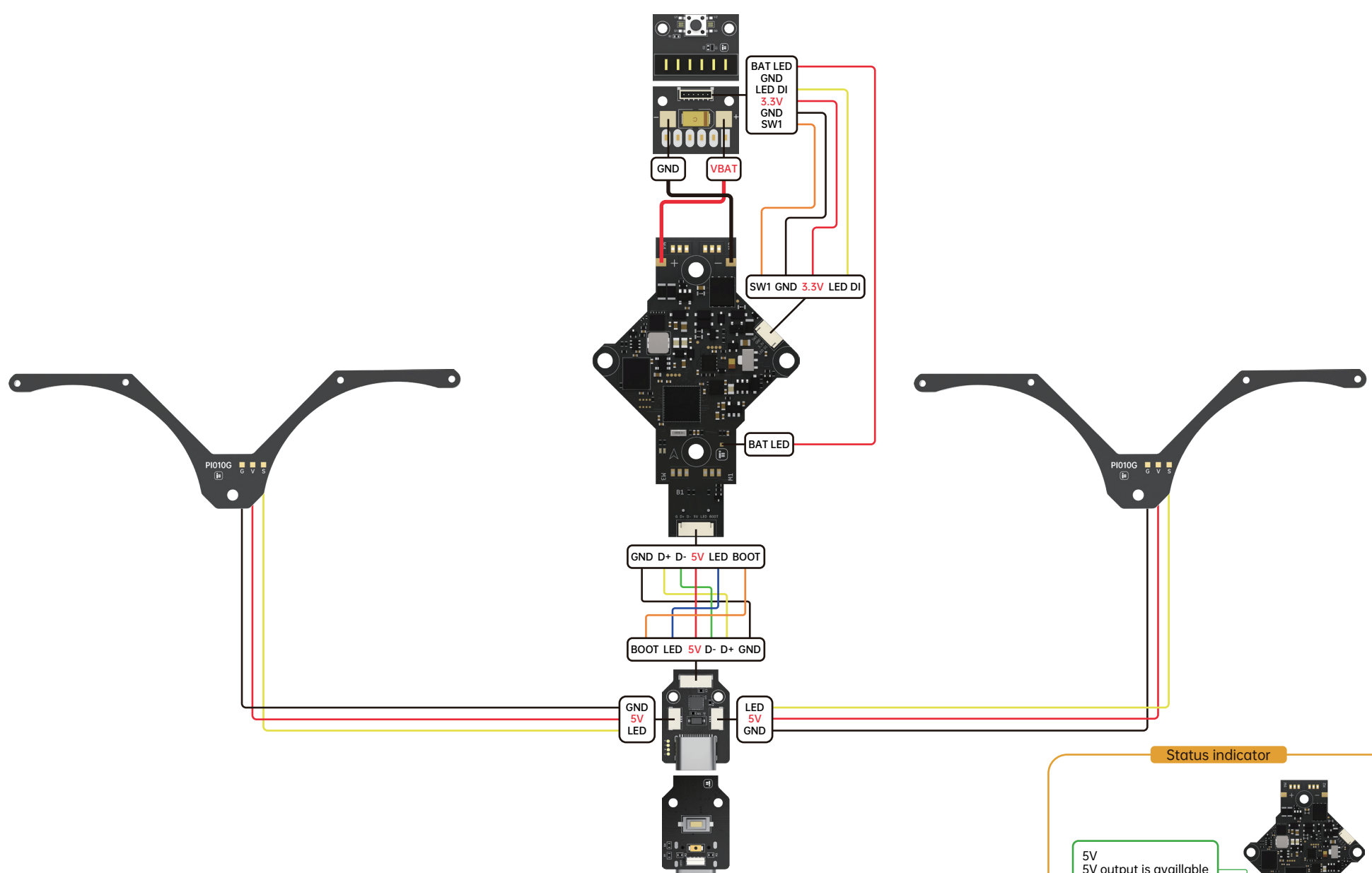


## VTX



| Receiver | Configuration | Serial Rx | Serial Tx | Serial Rx | Serial Tx | Receiver |
|----------|---------------|-----------|-----------|-----------|-----------|----------|
| UART1    | 115200        | 3         | Disabled  | AUTO      | Disabled  | AUTO     |
| UART2    | 115200        | 3         | Disabled  | AUTO      | Disabled  | AUTO     |
| UART3    | 115200        | 3         | Disabled  | AUTO      | Disabled  | AUTO     |

## Wiring diagram overview



**Status indicator**

- 5V output is available  
Green LED is visible
- Start FC startup successful  
Blue LED is visible

## Motors

ESC Firmware: Q-H-50 - Bluejay, 0.16

