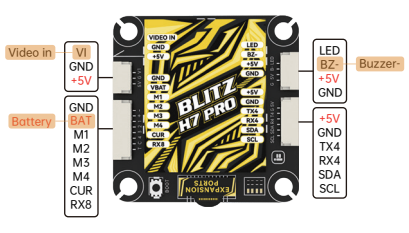
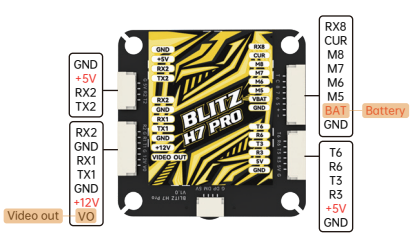
iFlight BLITZ H7 Pro Instructions

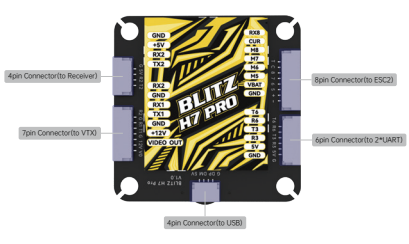
Parameters:

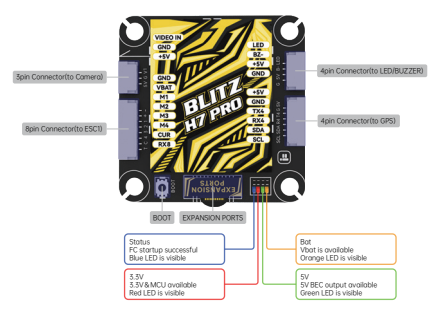
MCU: STM32H743
Gyro: ICM42688
Baro: DPS310
OSD: AT7456E
input voltage: 14.8V-50.4V (4S-12S LIPO)
①BEC: Output 5V 2A continuous output current, 3A peak current (15 seconds)
②BEC: Output 12V 2A continuous output current, 3A peak current (15 seconds)
BlackBox: SD CARD
Uart: 7*UART(UART1、UART2、UART3、UART4、UART5、UART6、UART7)
UART1 for VTX HD/Analog
UART2 for Receiver
UART4 for GPS
UART5 for ESC Telemetry
8×Dshot/PWM outputs
2×I2C for GPS Mag
1xGH1.25 3pin connector for Analog camera (Video in/GND/+5V)
1xGH1.25 4pin connector for Any Receiver (GND/+5V/RX2/TX2)
1xGH1.25 4pin connector for LED&Beeper (LED/BZ-/+5V/GND)
1xGH1.25 4pin connector for GPS&Mag (+5V/GND/TX4/RX4/SDA/SCL)
1xGH1.25 7pin connector for HD VTX/Analog VTX (RX2/GND/RX1/TX1/GND/+12V/Video out)
1xGH1.25 6pin connector for UART3&UART6 (TX6/RX6/TX3/RX3/+5V/GND)
1xGH1.25 8pin connector for ESC1 (GND/VBAT/M1/M2/M3/M4/CUR/RX8)
1xGH1.25 8pin connector for ESC2 (GND/VBAT/M5/M6/M7/M8/CUR/RX8)
4×0402 LEDs for FC STATE (3.3V Red) / (STATE Blue) / (5V Green) / (BAT Orange)
Smartaudio&IRCTramp VTX protocol supported
WS2812ledStrip: Yes
Bepper: Yes
Dimensions: 42*42*11.3mm
Mounting hole: 35*35mm/φ4
Weight: 20±2g

Firmware target:
Betaflight: IFLIGHT_BLITZ_H7_PRO
Ardupilot: BlitzH743Pro



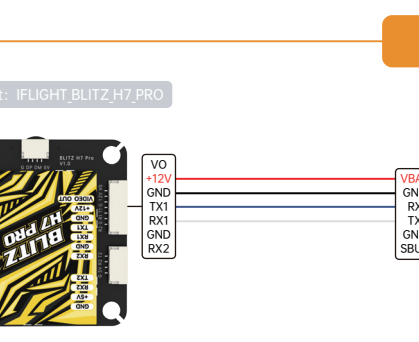






Notice

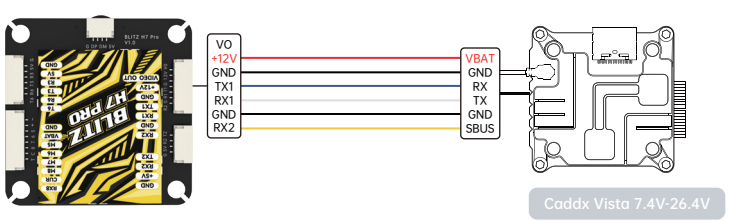
Firmware Target: IFLIGHT_BLITZ_H7_PRO



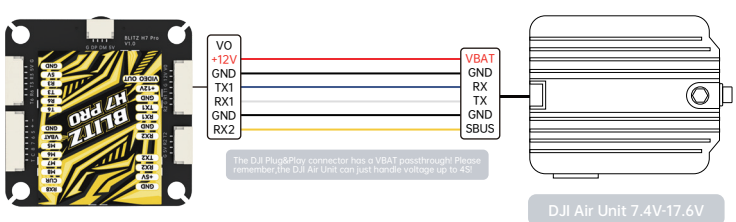
- 12V is a controllable output port. When the DJI Air Unit or any VTX is connected to 12V, ensure that VTX_ON_OFF is always enable in Betaflight (place the AUX in any idle one), and set the AUX channel corresponding to the remote control switch if you wanna the VTX power to be controllable.

DJI Digital Transmiters

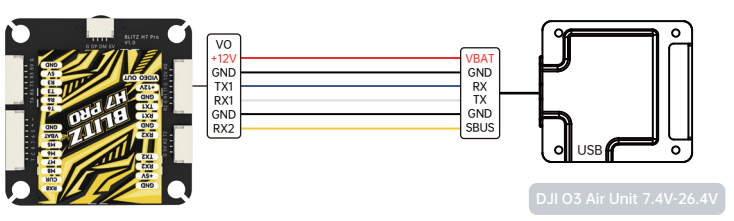
Firmware Target: IFLIGHT_BLITZ_H7_PRO



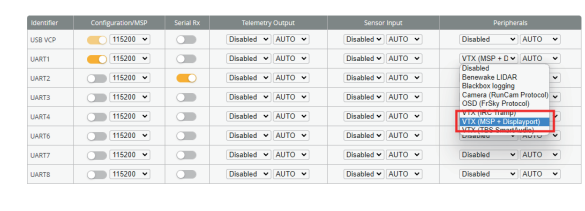
Caddx Vista 7.4V-26.4V



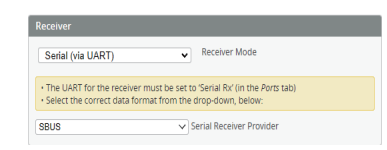
DJI Air Unit 7.4V-17.6V



DJI O3 Air Unit 7.4V-26.4V



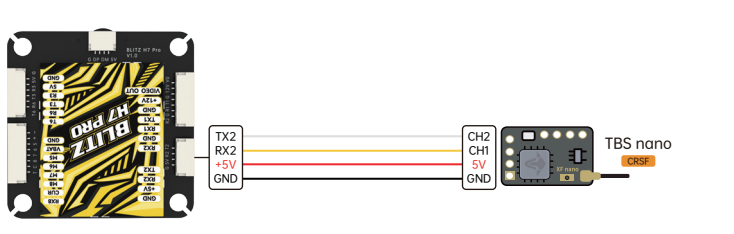
- To enable the air unit OSD under Betaflight 4.4 version, you need to select VTX (MSP+Displayport) in the peripheral port where the air unit signal is connected to the port interface.
- note: DJI FPV Remote Controller2 is for DJI O3 Air Unit
  DJI FPV Remote Controller is for DJI Air Unit and Vista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

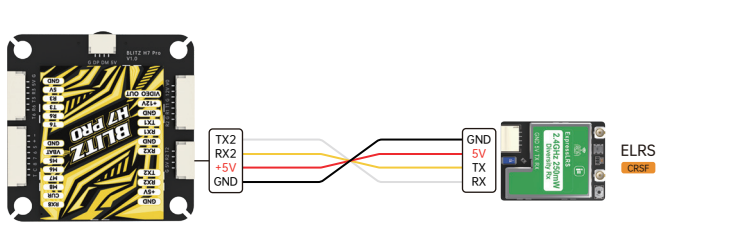


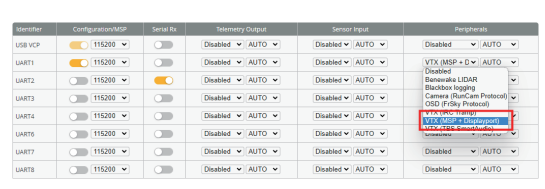
Any other Receiver

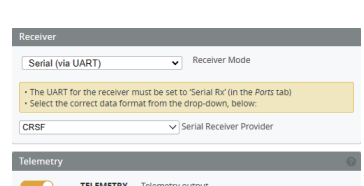
Firmware Target: IFLIGHT_BLITZ_H7_PRO

DJI O3 Air Unit 7.4V-26.4V

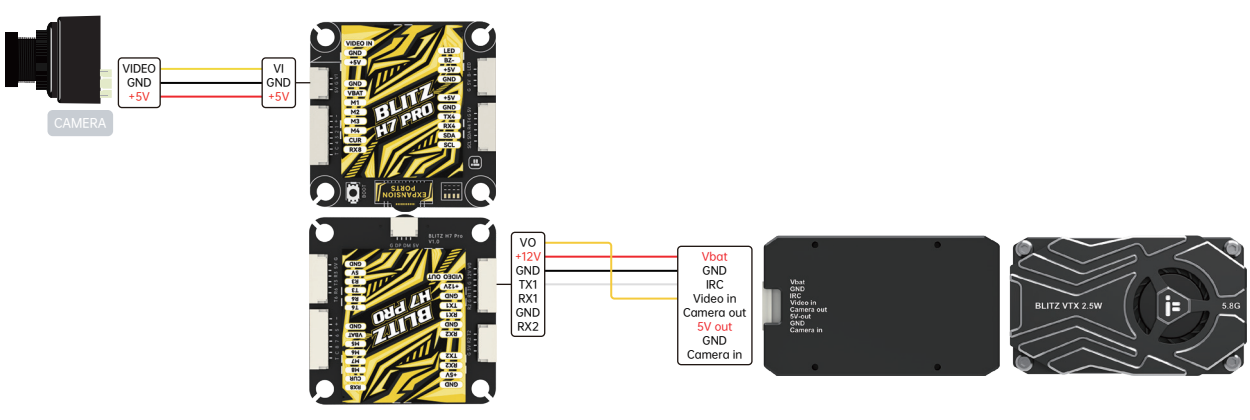








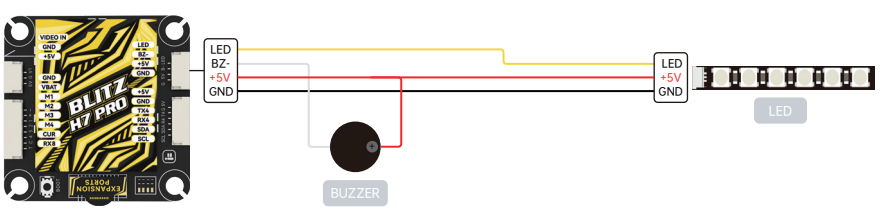
VTX/CAM



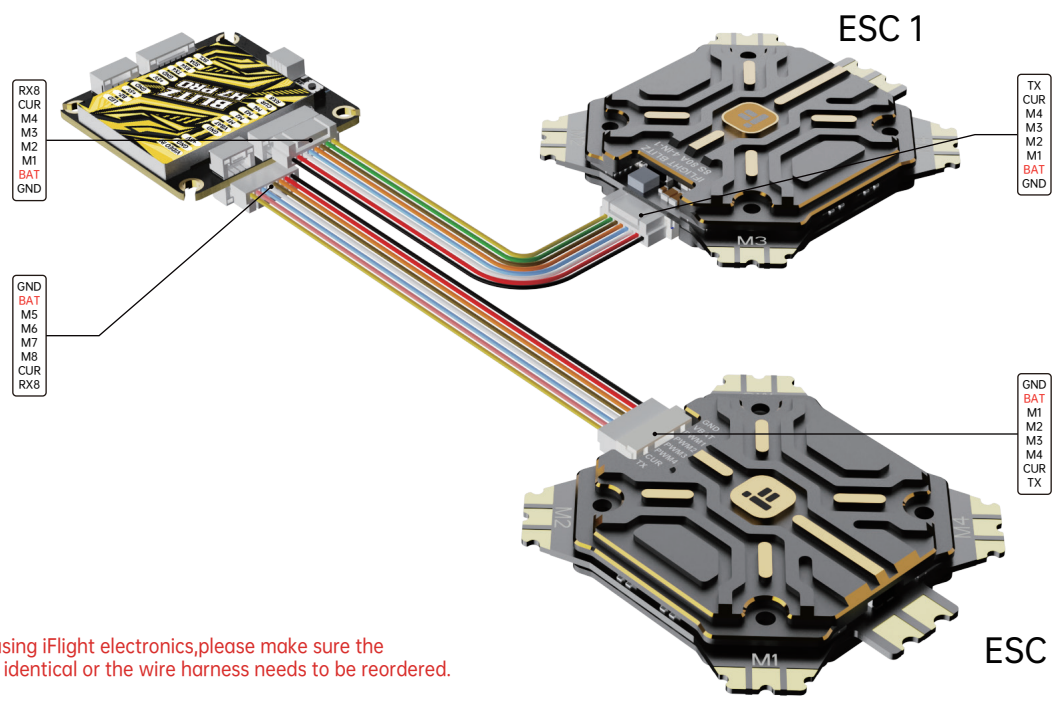
Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	115200		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART1	115200		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART2	115200	✓	Disabled AUTO	Disabled AUTO	
UART3	115200		Disabled AUTO	Disabled AUTO	
UART4	115200		Disabled AUTO	Disabled AUTO	
UART6	115200		Disabled AUTO	Disabled AUTO	
UART7	115200		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART8	115200		Disabled AUTO	Disabled AUTO	Disabled AUTO

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

LED/BUZZER



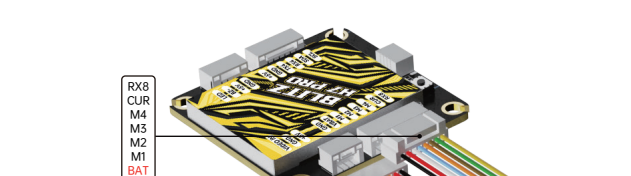
ESC



Note: If not using iFlight electronics,please make sure the plug pinout is identical or the wire harness needs to be reordered.

Anti-Spark Filter

GPS



SDA/SCL pads can not be remapped to UARTs

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	Disabled AUTO
UART2	115200		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART3	115200		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART4	115200		Disabled AUTO	GPS 115200	Disabled AUTO
UART6	115200		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART7	115200		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART8	115200		Disabled AUTO	Disabled AUTO	Disabled AUTO

Dimensions/Mounting pattern