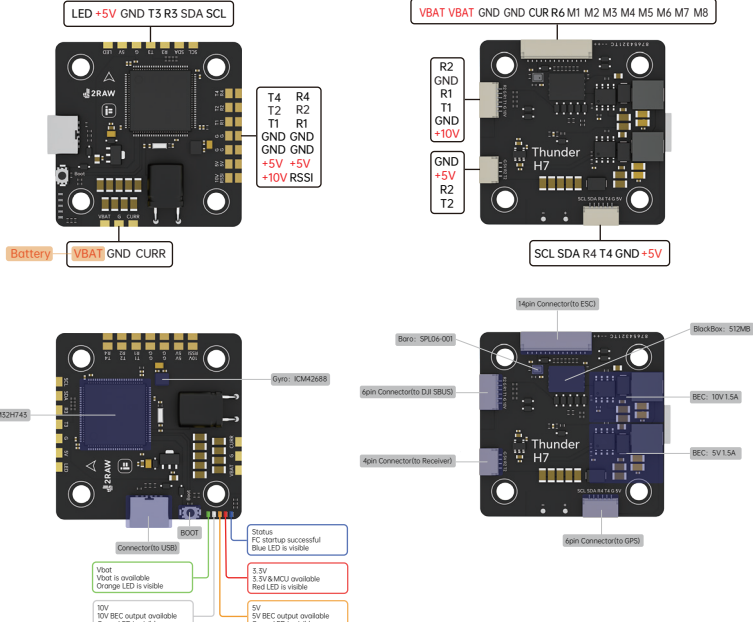


# iFlight Thunder H7 Instructions

## Parameters:

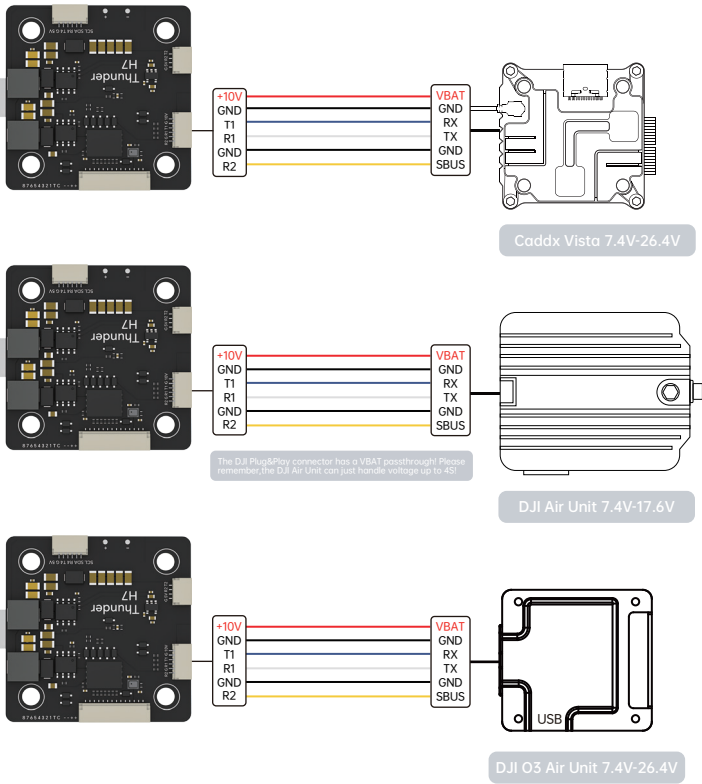
MCU: STM32H743  
Gyro: ICM42688  
Baro: SPL06-001  
OSD Chip: Not support analog OSD, only supports HD UART transmission OSD  
①BEC: Output 5V 1.5A continuous output current, 2A peak current (120 seconds)  
②BEC: Output 10V 1.5A continuous output current, 2A peak current (120 seconds)  
BlackBox: 512MB  
Uart: 4\*UART(UART1, UART2, UART3, UART4, UART6)  
UART1 for VTX-HD  
UART2 for Receiver  
UART3 for other devices that require serial ports  
UART4 for GPS  
UART6 for ESC Telemetry  
8\*Shot/PWM outputs  
1\*I2C  
1xSH1.0 14pin connector for ESC (Vbat/Vbat/G/G/Cur/R6/M1/M2/M5/M4/M5/M6/M7/M8)  
1xSH1.0 6pin connector for DJI (R2/G/R1/T1/G/10V)  
1xSH1.0 6pin connector for GPS (SCL/SDA/R4/T4/G/5V)  
1xSH1.0 4pin connector for Receiver (G/5V/R2/T2)  
5x0402 LEDs for FC STATUS (Start Blue) / (3.3V Red) / (5V Red) / (10V White)/(BAT Green)  
WS2812 ledStrip: Yes  
Beeper: NO  
Dimensions: 42\*42mm  
Mount pattern: 30.5\*30.5mm/φ4  
Weight: 14g

Firmware:  
Betaflight: 2RAW\_THUNDER.H7  
iNAV: 2RAW\_THUNDER.H7



## DJI Digital Transmitters

Firmware Target: 2RAW\_THUNDER.H7



Identifier	Configuration/OSD	Serial Rx	Telemetry Output	Sensor Input	Parameters
USB VCP	115200	Disabled	Disabled	Disabled	Disabled
UART1	115200	Disabled	Disabled	Disabled	VTX (MSP + D+)
UART2	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART3	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART4	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART5	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART6	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART7	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART8	115200	Disabled	Disabled	Disabled	Receiver (UART)

Receiver

Serial (via UART) Receiver Mode

The UART for the receiver must be set to 'Serial Rx' (in the Ports tab)

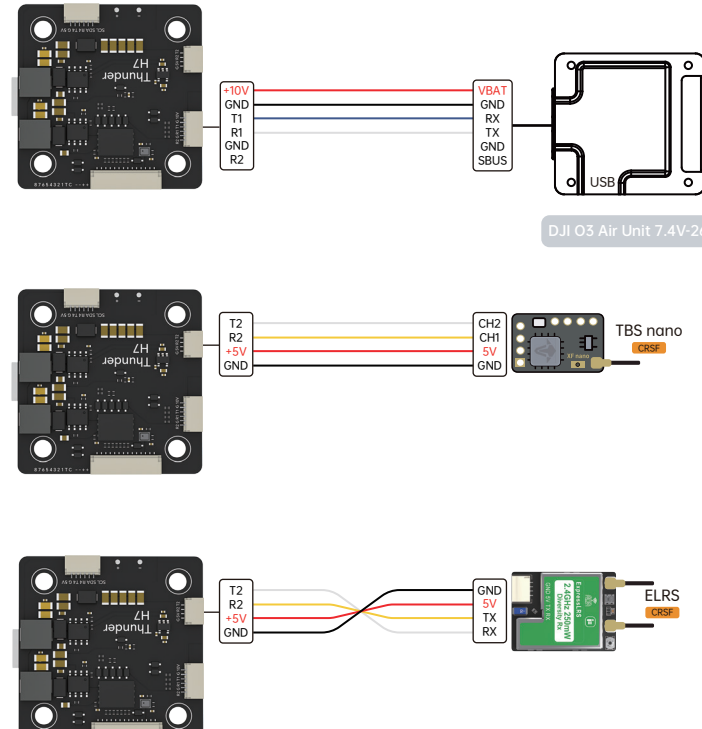
Select the correct data format from the drop-down, below:

SBUS Serial Receiver Provider

- 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  
For lower signal latency use the SBUS BAUD\_FAST match 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

## Any other Receiver

Firmware Target: 2RAW\_THUNDER.H7



Identifier	Configuration/OSD	Serial Rx	Telemetry Output	Sensor Input	Parameters
USB VCP	115200	Disabled	Disabled	Disabled	Disabled
UART1	115200	Disabled	Disabled	Disabled	VTX (MSP + D+)
UART2	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART3	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART4	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART5	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART6	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART7	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART8	115200	Disabled	Disabled	Disabled	Receiver (UART)

Receiver

Serial (via UART) Receiver Mode

The UART for the receiver must be set to 'Serial Rx' (in the Ports tab)

Select the correct data format from the drop-down, below:

CRSF Serial Receiver Provider

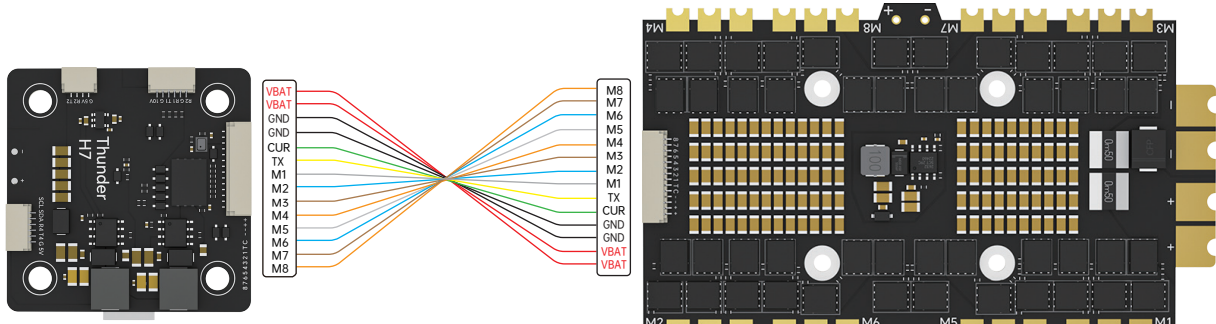
Telemetry

TELEMETRY Telemetry output

## LED

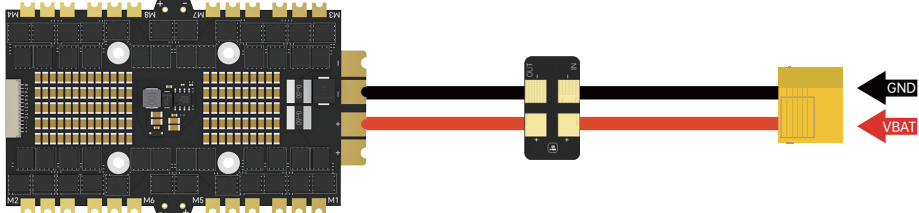


## ESC

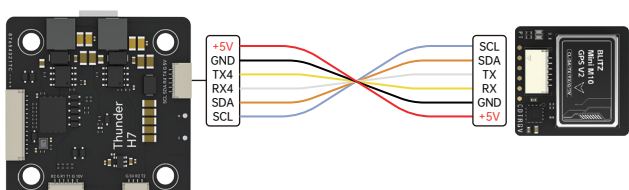


Note: If not using iFlight electronics, please make sure the plug pinout is identical or the wire harness needs to be reordered.

## Anti-Spark filter



## GPS



SDA/SCL pads can not be remapped to UARTs

Identifier	Configuration/OSD	Serial Rx	Telemetry Output	Sensor Input	Parameters
USB VCP	115200	Disabled	Disabled	Disabled	Disabled
UART1	115200	Disabled	Disabled	Disabled	VTX (MSP + D+)
UART2	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART3	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART4	115200	Disabled	Disabled	GPS	115200
UART5	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART6	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART7	115200	Disabled	Disabled	Disabled	Receiver (UART)
UART8	115200	Disabled	Disabled	Disabled	Receiver (UART)

GPS Configuration

UBLOX Protocol

Auto Config

Use Galileo

Set Home Point Once

Auto-detect Ground Assistance Type

## Dimensions/Mounting pattern

