

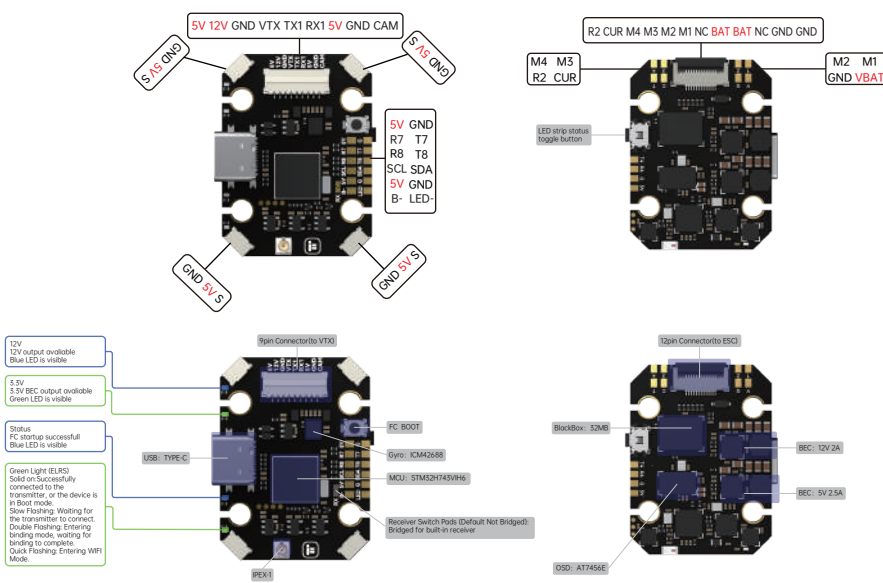
iFlight Borg Mini H7 RX Wiring diagram

Parameters:

FC Specifications:
Input voltage: 4-8S Support LHV battery
Dimensions: 56*27mm1mm
Mount pattern: 20*20w4
Weight: 7.7g±1
MCU: STM32H743VH6
Gyro: ICM42688
OSD: AT7456E (LGA)
Blackbox: 32MB
Motor outputs: 4
IDC: Supported
BEC: 5V 2.5A, 12V 2A (12V with VTX switch)
LED Strip: Supported
Beeper: Yes
VTX protocol: Support DJI MSP(SmartAudio)/RCTramp/H-DZero
UART1: 5
Uart: SPUART (UART1, UART2, UART4, UART7, UART8)
UART1: VTX HD / Analog
UART2: ESC Telemet
UART4: ELRS Receiver
UART7: GPS or other sensors that require a serial port
UART8: GPS or other sensors that require a serial port
VTX ON/OFF Mode Command:
resource PINIO 1 D10
set pinio_box = 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

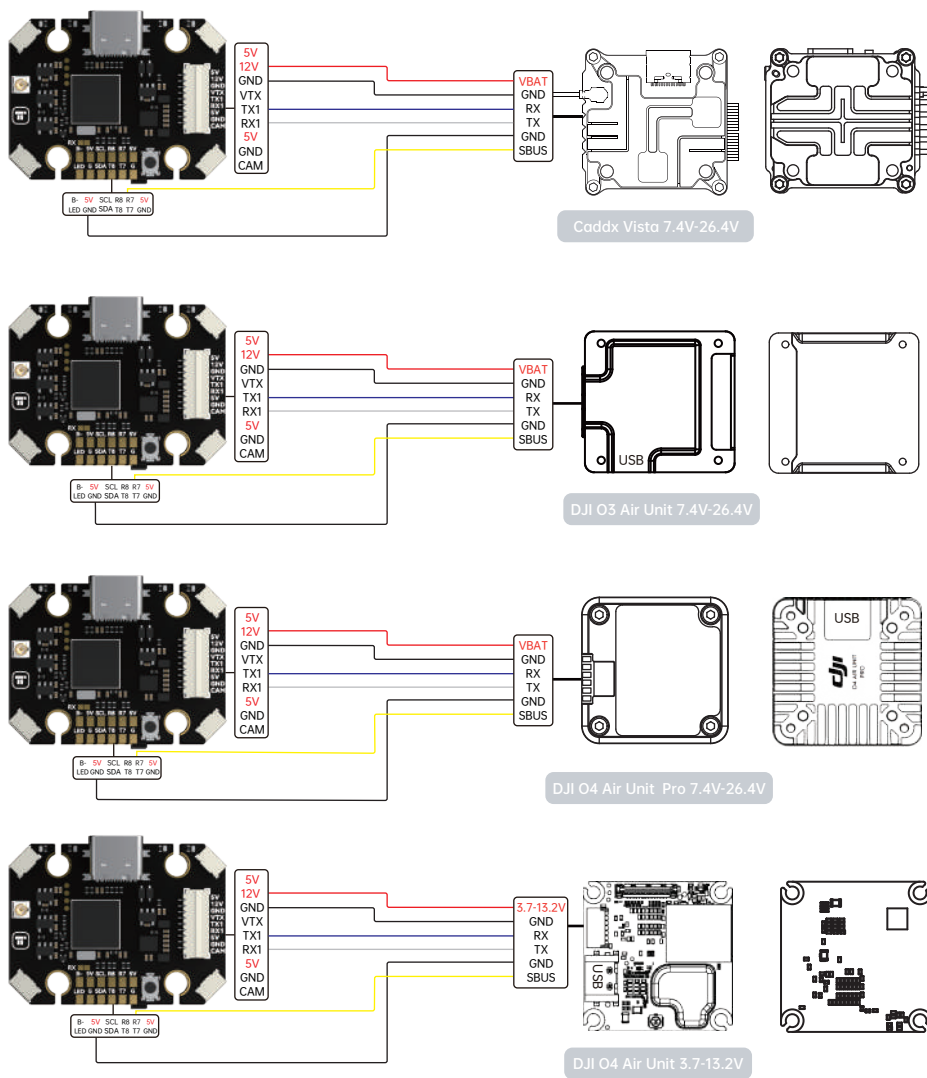
Firmware:
Betaflight: iFLIGHT H743 AIO V2
Receiver Firmware: iFLIGHT 2.4GHz RX

Receiver Specification:
MCU: ESP8285
RF: SX1281
Receiver Type: 2.4GHz
Telemetry power: 100mW (20dBm)
LNA: Yes
Firmware: iFlight2.4GHz 2400_RX
Luo Script: iFlight2400RX
TCXO: Yes



DJI Digital Transmitters: SUBS Protocol

Firmware Target: iFLIGHT H743 AIO V2



Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
UART1	115200	Disabled	AUTO	Disabled	Disabled
UART2	115200	Disabled	AUTO	Disabled	Disabled
UART3	115200	Disabled	AUTO	Disabled	Disabled
UART4	115200	Disabled	AUTO	Disabled	Disabled
UART5	115200	Disabled	AUTO	Disabled	Disabled
UART6	115200	Disabled	AUTO	Disabled	Disabled

Receiver Mode

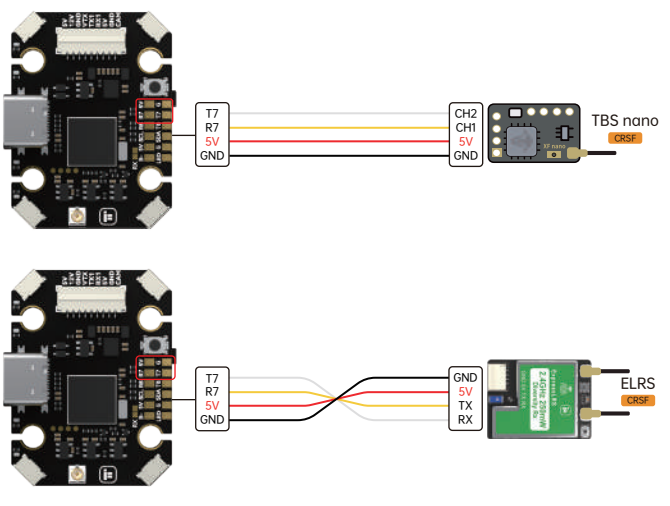
Serial (via UART)

Receiver Mode

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 Controller2 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 signal latency use the SBUS 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



Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
UART1	115200	Disabled	AUTO	Disabled	Disabled
UART2	115200	Disabled	AUTO	Disabled	Disabled
UART3	115200	Disabled	AUTO	Disabled	Disabled
UART4	115200	Disabled	AUTO	Disabled	Disabled
UART5	115200	Disabled	AUTO	Disabled	Disabled
UART6	115200	Disabled	AUTO	Disabled	Disabled

Receiver Mode

Serial (via UART)

Receiver Mode

Serial Receiver Provider

CRSF

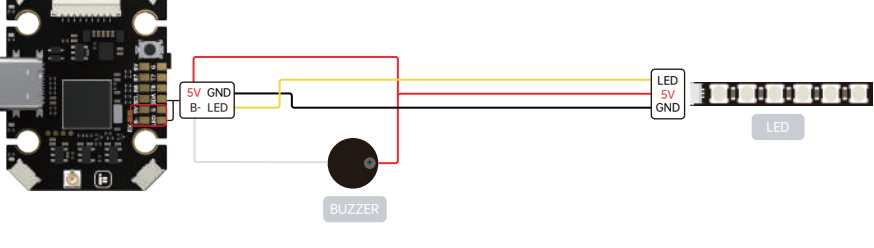
Serial Receiver Provider

Telemetry

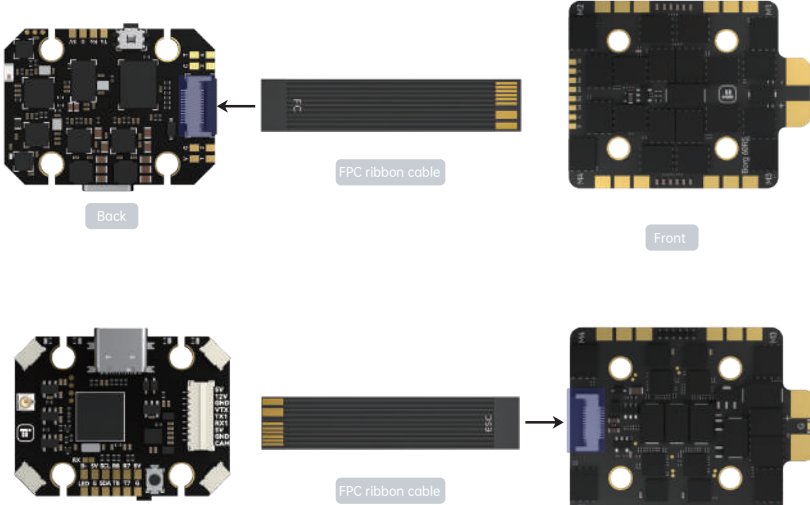
TELEMETRY

Telemetry output

LED/BUZZER

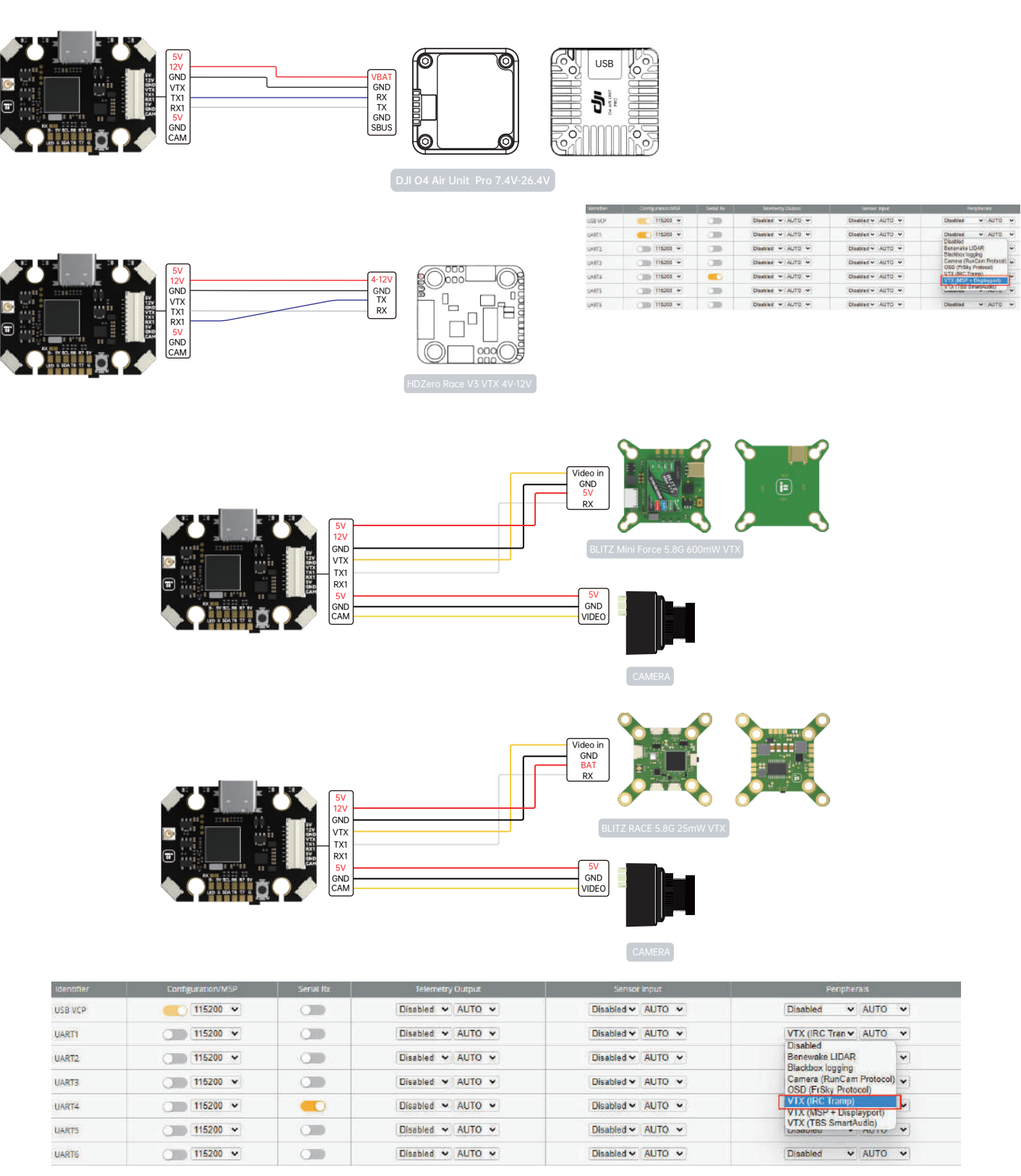


ESC



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

VTX/CAM



Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	115200	Disabled	AUTO	Disabled	Disabled
UART1	115200	Disabled	AUTO	Disabled	Disabled
UART2	115200	Disabled	AUTO	Disabled	Disabled
UART3	115200	Disabled	AUTO	Disabled	Disabled
UART4	115200	Disabled	AUTO	Disabled	Disabled
UART5	115200	Disabled	AUTO	Disabled	Disabled
UART6	115200	Disabled	AUTO	Disabled	Disabled

VTX ON/OFF

AUX 9

Min: 1600

Max: 2100

Add Link

Add Range

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

AUX 9

Min: 1600

Max: 2100

Add Link

Add Range

VTX_ON/OFF Mode On

VTX ON/OFF

AUX 9

Min: 1600

Max: 2100

Add Link

Add Range

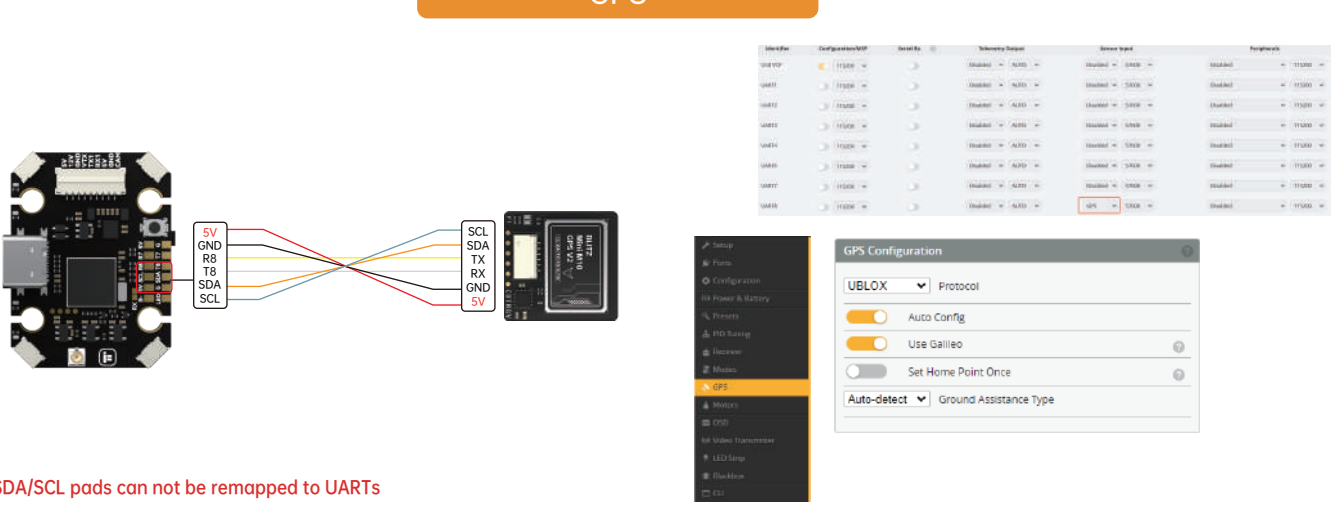
VTX_ON/OFF Mode Off

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.

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

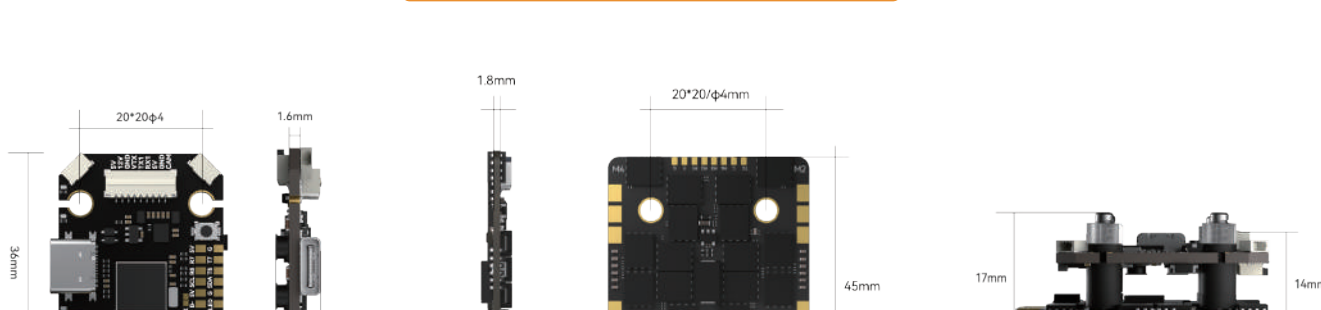
```
resource PINIO 1 D10
set pinio_box = 1,1,1,1
set pinio_box = 40,41,255,255
set box_user_1_name = VTX_ON/OFF
aux 0 40 8 900 2100 0 0
save
```

GPS



SDA/SCL pads can not be remapped to UARTs

Dimensions/Mounting pattern



IFLIGHT Borg 60R ESC

