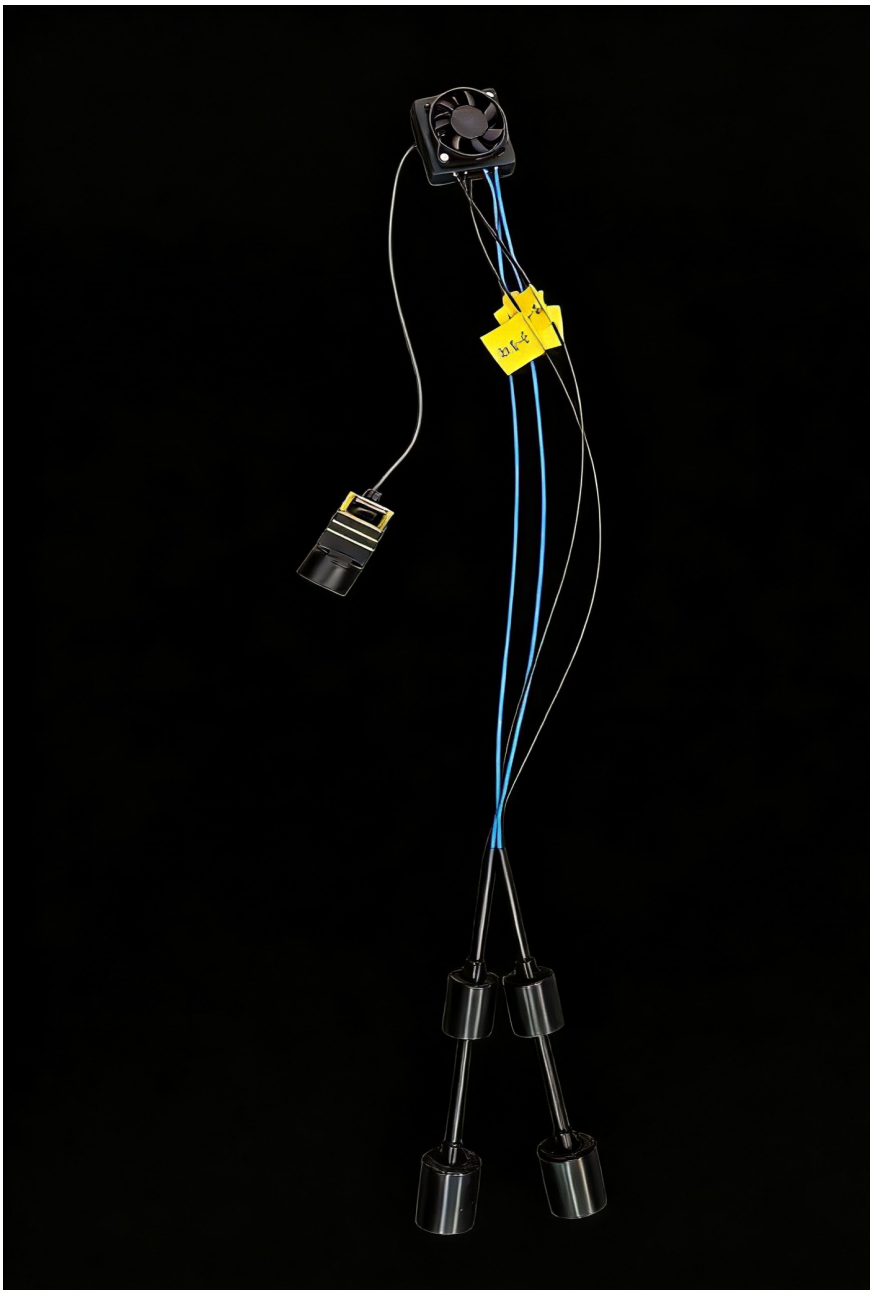
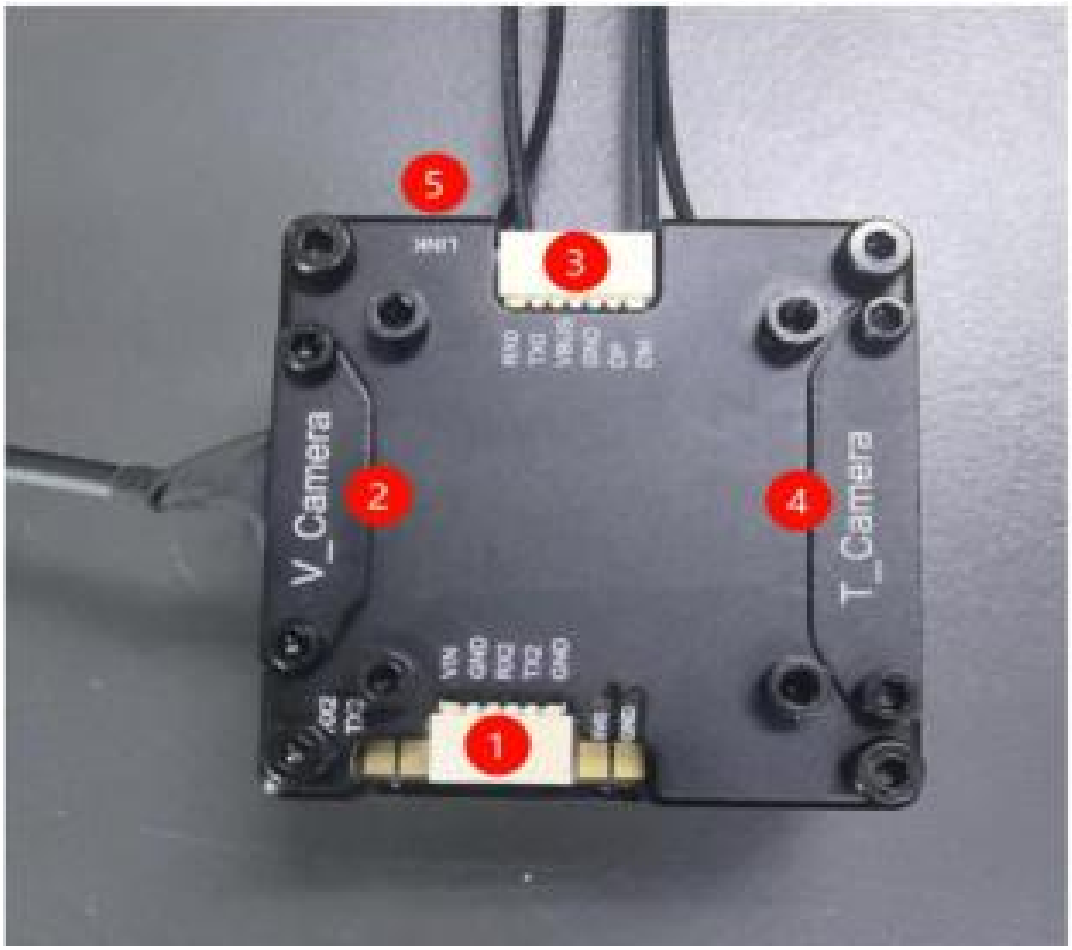
Wideband split camera VTX



1. Simply Introduction

Width Band kit includes a VTX (Wireless Transmitter) and an RBox (Ground Receiver Box), Detail introduction as below:

1.1 wireless transmitter device



1. Power Interface

Signal Name	Description
VIN	Input power supply, voltage 8~40V
GND	Ground
RX2	Connects to the flight controller's UART receive signal (relative to the VTX), level 3.3V
TX2	Connects to the flight controller's UART transmit signal (relative to the VTX), level 3.3V

2. Visible Camera Interface

Supports MIPI 2-lane

3. USB Interface

Signal Name	Description
RX0	UART receive signal (for the VTX)
TX0	UART transmit signal (for the VTX)
VBUS	USB VBUS signal
GND	Ground
DP	USB positive data signal
DM	USB negative data signal

4. Infrared Camera Interface

Supports MIPI 1-lane or DVP signals.

5. Frequency Pairing Button

5.1. Connect the Sky box and Receiver Box.

5.2. Briefly press the frequency pairing buttons on the sky box and Receiver Box respectively. After entering the frequency pairing state, the dual-color LEDs of the Sky box and Receiver Box will flash rapidly

5.3 When the wireless connection is successful, the green LEDs of both the sky box and Receiver Box will stay on, indicating a normal wireless connection.

6. Flying Control System Connect

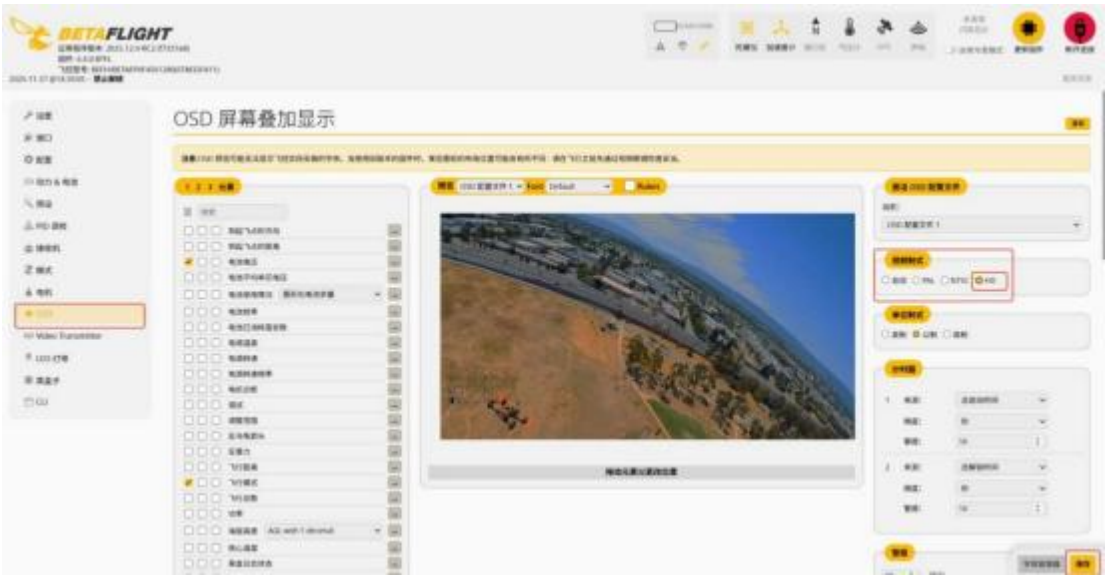
6.1 BTFL Msp Osd Setting

1. Connect with the flight controller.

2. Configure flight controller by https://app.betaflight.com.

3. Connect the flight controller by the BTFL Configurator, choose any serial port as the MSP display port, taking UART2 as an example.

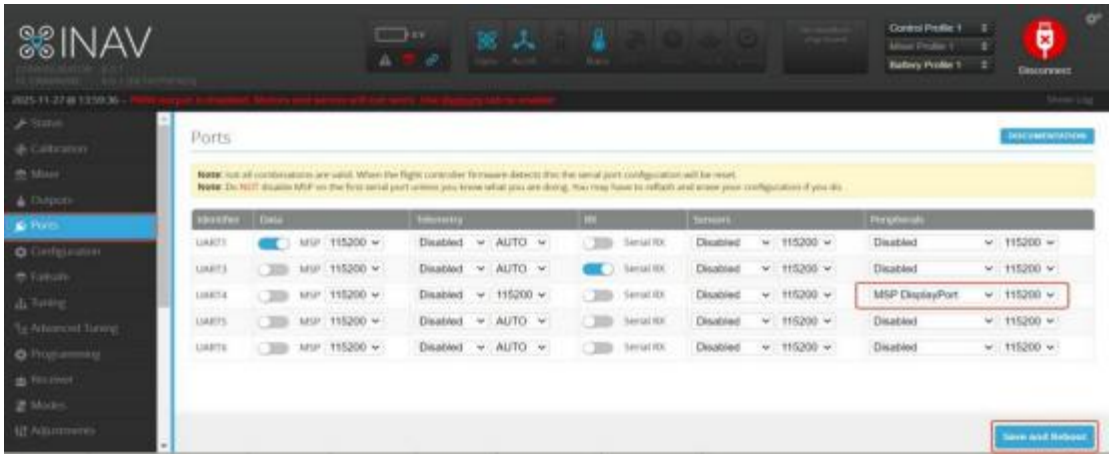
4. Currently, our ui osd font only supports “HD” video format. Save and restart the flight controller, and msp osd output is setting done.



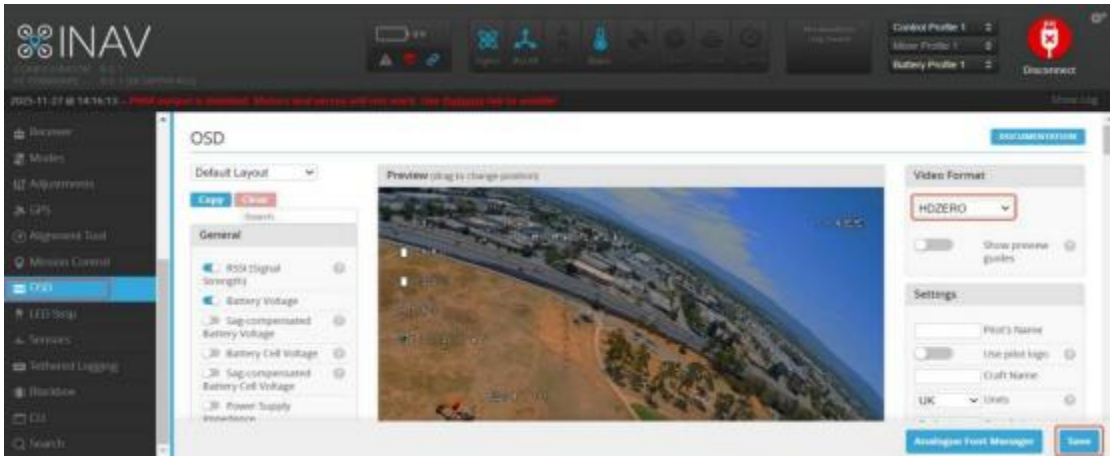
6.2 INAV MSP OSD Setting

1. Connect with the INAV flight controller .

2. Connect the flight controller by the INAV Configurator, choose any serial port as the MSP display port, taking UART4 as an example.



3. Currently, our UI osd font only supports “HDZERO” video format. Save and restart the flight controller, and MSP OSD output is setting done.



7. LED Status Indicators

Status	Description
Unpaired State	The red LEDs of both the VTX and RBox are always on
Pairing in Progress	The dual-color LEDs of both the VTX and RBox flash rapidly
Pairing Successful	The green LEDs of both the VTX and RBox are always on

8. Specifications

8.1 Sky Box Spec.

Communication Frequency	3~7GHz
Communication Bandwidth	5MHz
Interfaces	JST1.0*4 (Power Cable), TF card slot
Mounting Hole Spacing	25.5mmx25.5mm
Dimensions	34mmx34mmx18mm
SD Card Slot	Supports up to 1TB capacity
Video Resolution	1080p60fps/720p60fps
Weight	22.41g
Operating Environment Temperature	-20~60℃
Channel	36
Power Input	11.1~40V
Flight Control System	Betaflight， INAV
OSD	Canvas Mode

8.2 Receiver Box Specification

Communication Frequency	3~7GHz
Communication Bandwidth	5MHz
SD Card Slot	Supports up to 1TB capacity
Type-C Interfaces	USB-A to Type-C Cable to PC for software upgrade; USB3.2 Type-C to Type-C Cable to Display for DP output; UART EXP for serial port, TTL level 3.3V;
Power Input	9~30V， 2A

8.3 Camera Specifications

Image Sensor	thermal sensor
Resolution	25fps 640*480
Ratio	16:9/4:3
FOV	72°