

**URUAV**

**Flipo F95  
PNP QUICK START GUIDE**



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## Package Include

1\*Flipo F95 PNP

1\*GEMFAN D63 gray 3-blade Propeller (4 positive 4 negative)

2\*battery strap

2\*Black battery non-slip mat

1\* M2\*7 Countersunk Screws(6pcs)

1\* M2\*7 Cup head screw(8pcs)

### 1.1 Frame kit

Wheelbase: 100mm

Blade size: 2.5 inches

Image transmission hole distance: M2x20x20mm

Motor pitch: M2x9x9mm



## 2. 1 1106-4500KV motor (black)

Motor KV:4500rpm/v

Lipo Cell: 2-4S

Weight: 10.8g

Idle Current (IO/10V) : 0.185

Max Continuous Current: 7.0A

Max Continuous Power : 110W

Max thrust: 269G (16.8V/4024R)

Config - ration: 12N/14P

Motor Resistance (Rm) : 0.481Ω

Stator Diameter: 13mm

Stator Length: 6mm

Motor Dimensions: Φ14.2mm\*14.5mm

Overall Shaft Length: 4mm

Shaft Diameter: 1.5mm

Bolt holes spacing:9\*9mm

Bolt thread: M2

Propeller : 2.5"



## 3.1 F405 15A AIO FC

### FC parameters:

CPU: STM32F405 (168MHz)

IMU: MPU6000 (SPI connection)

size: 30mm\*30mm

Mounting Hole:26x26mm

Firmware: GEPR/GEPRCF405

OSD: Built-in OSD (STM32 controls the OSD chip via SPI)

Receiver: Stand by FrskyXM/XM+Receiver/Futaba Receiver/Flysky

Receiver/TBSCrossfire Receiver

programmable LED such as WS2812 :Support

Built-in current sensor

Reserved buzzer interface

Reserved DJI port

Weight: 6.4g

### ESC parameters:

BLHELI\_S all functions:Support

PWM, Oneshot125, Oneshot42, Multishot, Dshot150, Dshot300,

Dshot600: Support

Input voltage: 2S-4SLipo

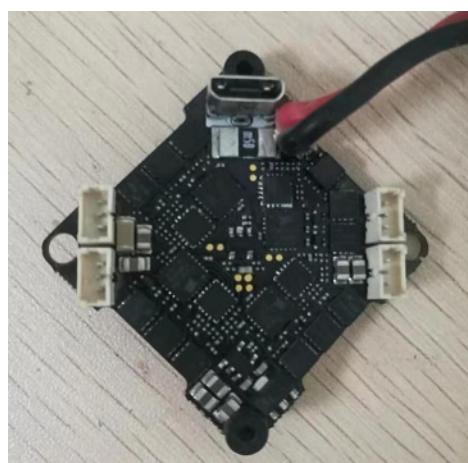
Constant current: 12A

Peak current: 18A

CPU: EFM8BB21F16G

Motor connector: 1.25mm pin header connector

Firmware: G-H-30-16.7



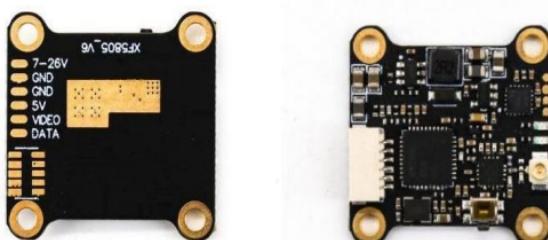
## 4. 1 RunCam Nano 2 FPV Camera

Item: RunCam Nano 2FPV Camera  
Beeldsensor: 1/3 "CMOS  
Horizontale Resolutie: 1200TVL  
Lens: 2.1mm(M8) FOV 155 °  
Signaal Systeem: NTSC / PAL  
S/N Ratio: >50dB  
Elektronische Sluitertijd: Auto  
Auto Gain Control (AGC): Auto  
Min. Verlichting: 0.01Lux1.2F  
D-WDR: Auto  
Dag/Nacht: Kleur  
Power: DC 3-5.5V  
Stroom: 110mA @ 5V 120mA@3.3V  
Behuizing Materiaal: ABS  
Netto Gewicht: 3.4g  
Afmetingen: L14mm \* W14mm \* H16mm



## 6. 2 XF5805/5. 8G 40CH VTX

Support TBS Smart Audio  
Transmitting power:  
0/25/100/300/400mw Frequency  
points: 40ch  
Video format: complete NTSC / PAL  
format Input voltage: 7V~26V  
Power consumption: +12V / 600MW, 260ma @  
Size: 25×20×4mm  
Weight: ≤3.2g (except for antenna)  
Equipped with copper tube mini antenna (ipex interface)  
Ps: The antenna must be installed before power on to avoid the possibility of burning the tuner.



## 5.1 5.8G IPEX left-handed antenna

Frequency range (MHz) : 5600~5950MHz

Polarization: Right-handed RHCP

Input Impedance: 50 Ω

VSWR (5800MHZ) ≤1.5

Maximum input power: 50W

Input connector type:UFL

Size: 15\*78MM±2

Antenna weight: 2.5g

Radome material: ABS

Radome color: black

Operating temperature: -40~60° c

Rated Wind Velocity: 60m/s



## 6.1 GEMFAN 63mm 2.5 inch propeller

Specification:D63

Diameter: 2.5inch

Paddle diameter: 63.5MM

Material: imported Bayer PC

Mounting holes: 1.5MM/4 holes

Center thickness:4.9MM

Quantity:2pairs

Color: black

Weight: 1.4g/PCS

## 7.1 Recommended power supply

Recommended voltage:: 2S-4S

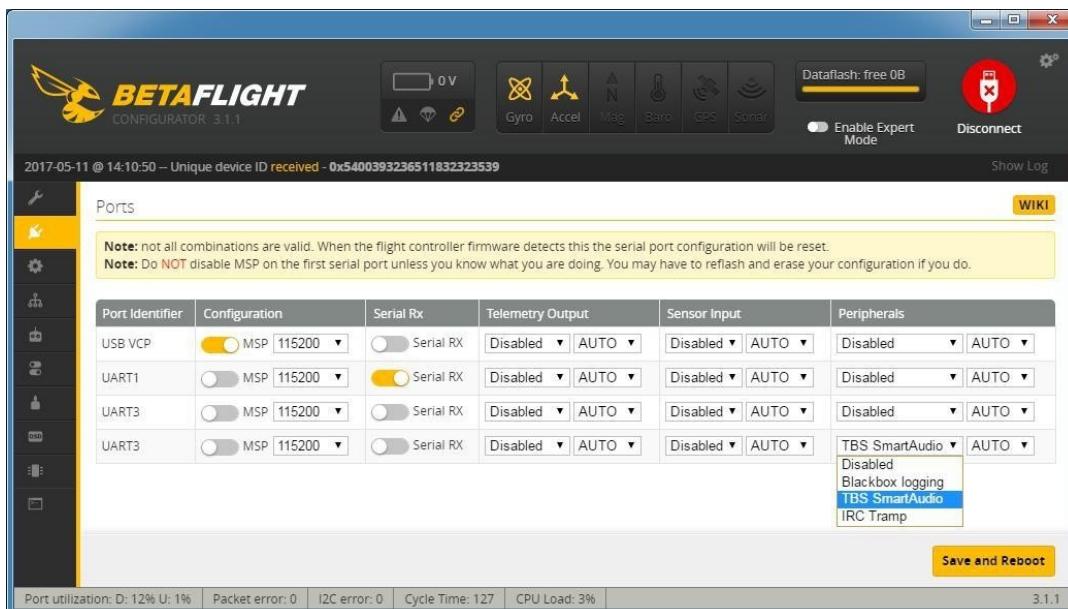
Recommended capacity:: 350-900 Mah

## 8.1 Adjusting parameter

### (1) Configuration of UART port parameters

Enter the Ports item, select the UART port (UART3 in this case), and then select the TBS Smart Audio item (Figure 1) in the Peripheral column to complete the configuration of the flight control image serial port.

If the connection between the image transmission and the selected flight control UART port remains unchanged, this step only needs to be operated once.



### (2) Frequency grouping and channel number configuration

#### ① Enter OSD parameter menu

When VTX1 image transmission, corresponding image transmission receiver display screen and flight control are powered on, the information shown in Figure 2 will appear on the receiving screen.



Figure 2 Electrical display information

At this time, according to the screen prompt operation THR MID

(throttle center), YAW LEFT (YAW rocker to the left), PITCH UP (PITCH rocker to the top) into the OSD parameter adjustment menu (Figure 3).

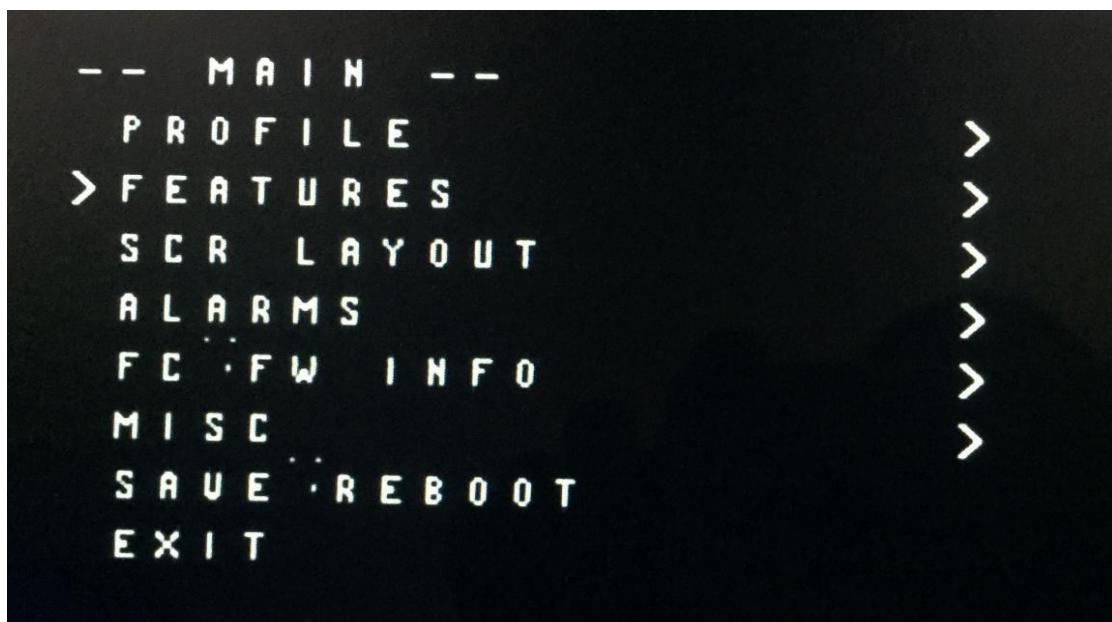


Figure 3 OSD parameter menu

## ② Start grouping and channel configuration

Under the OSD MAIN menu, the PITCH rocker can move the cursor arrow up and down to select the menu item, select the FEATURES item, then select the ROLL rocker to the right, and enter the lower configuration menu (Fig. 4).

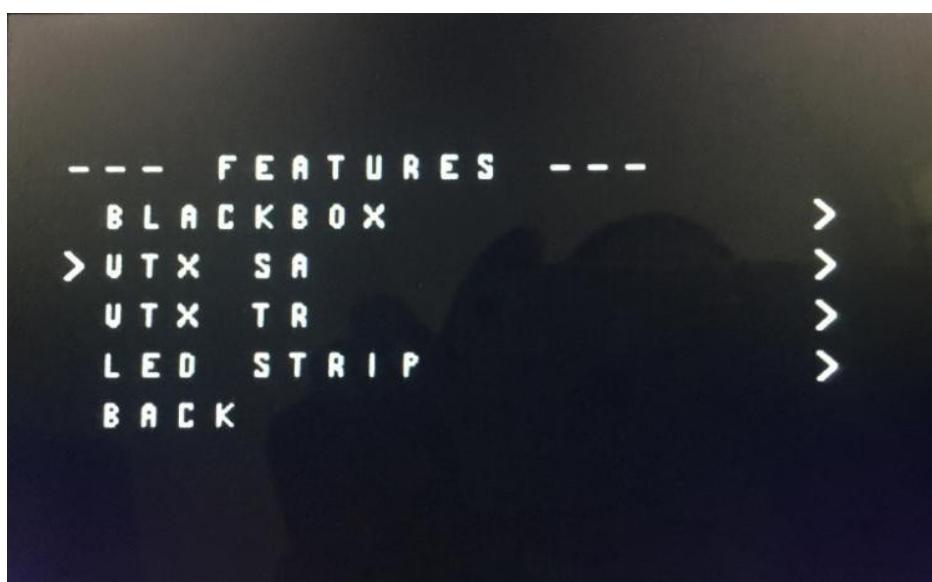


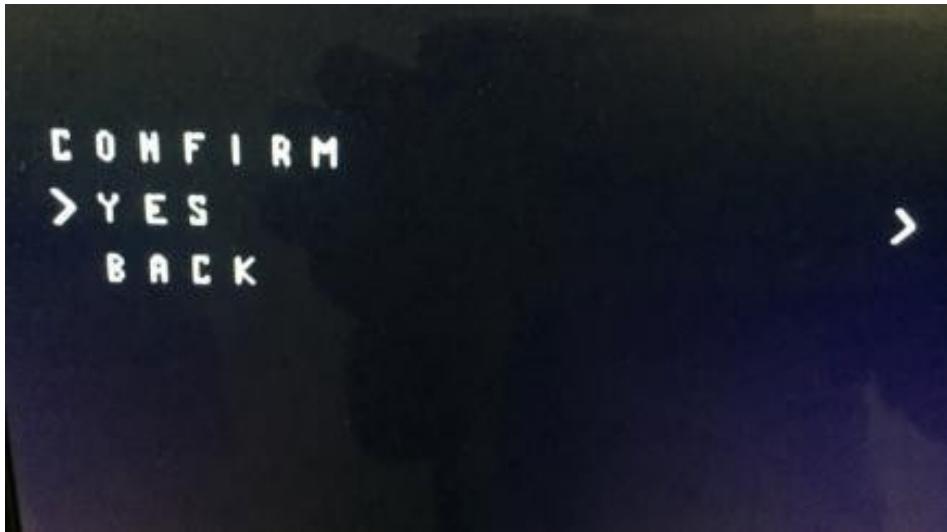
Figure 5 FEATURES Menu

In the menu of Figure 4, select the desired frequency grouping BAND and channel CHAN by swinging the ROLL rocker left and right.

Note: Because VTX1 supports 48 channels, users can select any of the 48 channels by pressing keys. But at present, Betaflight's OSD parametric function only supports 40 channels, so users can only configure 40 channels on the OSD screen.

If the user chooses one of the eight channels that OSD parameters do not support and enters OSD parameters, the system will automatically change the user's original channel to A1 channel on our frequency table (5865 MHz), that is, the user can configure only 40 channels with OSD parameters.

After configuring the grouping and channel, you need to enter the SET item and select YES to take effect (Figure 6).

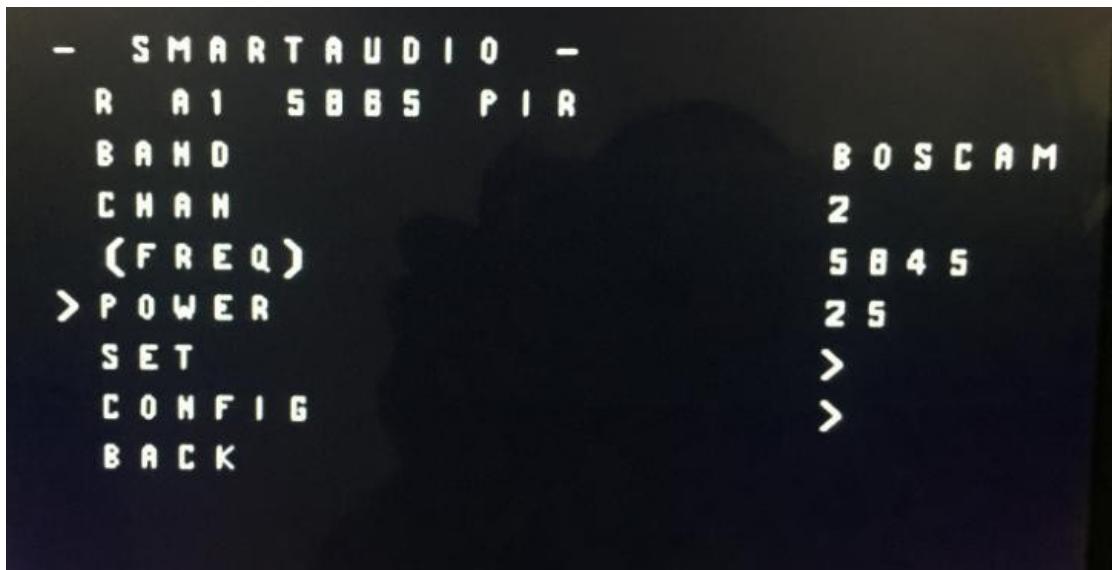


**Figure 6** Grouping and channel configuration validation

### ③ Output power configuration

As in the previous section, the POWER item can be entered by remote control selection, and the required transmission power can be selected (Fig. 7). VTX1 currently supports only 25 mW power options, while the POWER menu with OSD parameters has four options: 25 mW, 200 mW, 500 mW and 800 mW. Therefore, users need to pay attention to the choice of 200 mW, 500 mW, 800 mW options will be VTX1 set to 25 mW transmission power.

Note: Unlike configuring BAND and CHAN, POWER settings do not need to enter the SET entry confirmation, and take effect immediately.



## **Figure 7** Transmission Power Selection

## ④ Channel number indication

The LED lamp displays the set grouping and channel, and the corresponding working frequency is shown in the table below.

## Channel select :

Select channels by simple short presses.

Blue LED light on stands for CH1,short presses to change 8 channels sequentially.

Band select:

Press button for 2S,Green LED will flash,then short presses to select 5 bands.

## Power select:

Press button for 4S, Red LED will flash, then select power by simple short presses to select 25mW/200mW/600mW/800mW.

Blue light indicates FR, green light indicates CH, hollow circle indicates off, solid circle indicates ON

CH FR	CH1 ○○○	CH2 ○○●	CH3 ○●○○	CH4 ○●●●	CH5 ●○○○	CH6 ●○●●	CH7 ●●○○	CH8 ●●●●	
A	○○●	5865	5845	5825	5805	5785	5765	5745	5725
b	●○○	5733	5752	5711	5790	5809	5828	5847	5866
C	○●●●	5705	5685	5665	5645	5885	5905	5925	5945
d	●○○○	5740	5760	5780	5800	5820	5840	5860	5880
E	●○●●	5658	5695	5732	5769	5806	5843	5880	5917
F	●●○○	5362	5399	5436	5473	5510	5547	5584	5621

## **Precautions for use:**

Before power on, make sure that the output terminal has an antenna installed to avoid damaging the internal components;

Note that the input voltage is within the specified range and positive and negative, so as to avoid damaging the internal components;

If you want to change the antenna, please choose the antenna with good standing wave and gain to get a long transmission distance;

Pay attention to electrostatic protection during transportation, installation and use;