

DJ220 PNP

Manual

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PRODUCE>>MULTIROTOR>>HD CINE MULTIROTOR>>DJ220



DJ220 manual



DJI FPV Digital



RunCam 4K

Configuration

Description

Wheelbase : 219mm
 Drone weight : 369.1g(DJ220-Digital)
 347.1g(DJ220-4K)
 316.7g(DJ220)
 Package size : 275*205*90mm
 Package weight : 842g(DJ220-Digital)
 795.4g(DJ220-4K)
 765g(DJ220)
 Plate thick : up plate 2.5mm , down plate 2.5mm ,
 arm frame 5mm , bottom plate 3mm
 Camera angle : 15-50°
 Mounting size : Flytower 30.5*30.5mm ,
 motor Φ16 M3*8 , camera 19mm/20mm
KK tower new name
 KKT16 mounting size 16*16mm
 KKT20 mounting size 20*20mm
 KKT30 mounting size 30.5*30.5mm

Configuration

FC : KKT30-F4D Old name : F4+VTX
 ESC : KKT30-E40A Old name : ESC 40A(KK supper part)
 DJ220-Digital : DJI FPV Digital+Camera
 DJ220-4K : RunCam 4K KKT30-V600
 DJ220 : NO CAM+VTX
 Motor : XT2306-2500KV
 Prop : 51499-3blade
 Recommend battery : 14.8V 1300-1800mAh
 Receiver : DJ220-Digital (Include DJI RX , it canable to use DJI transmitter) ,
 FC can use AC2000 , XM+ etc. receiver , it can use Frsky ,
 Futaba transmitter

Package list



DJ220-Digital
 DJ220-Digital PNP*1 (include prop)
 DJ FPV manual*2
 Sticker*2
 battery strap*1
 Fixed seat*6
 Damping*6 (blue,red clear both 2pcs)
 Antenna rack*1
 ST2*6*2
 Video rack*2
 ST1.2*4*4
 M2*6*4

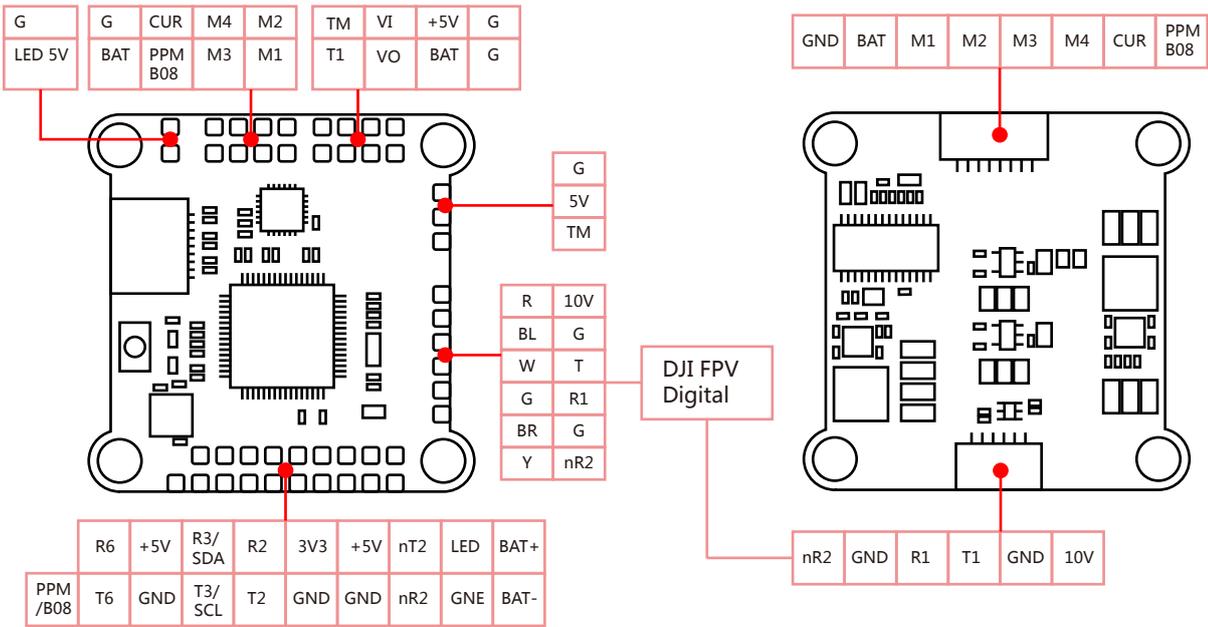


DJ220-4K
 DJ220-4K PNP*1 (include prop)
 RunCam 4K manual card*1
 Sticker*2
 battery strap*1
 Fixed seat*6
 Damping*6 (blue,red clear both 2pcs)
 Antenna rack*1
 ST2*6*2
 Video rack*2
 ST1.2*4*4
 M2*6*4



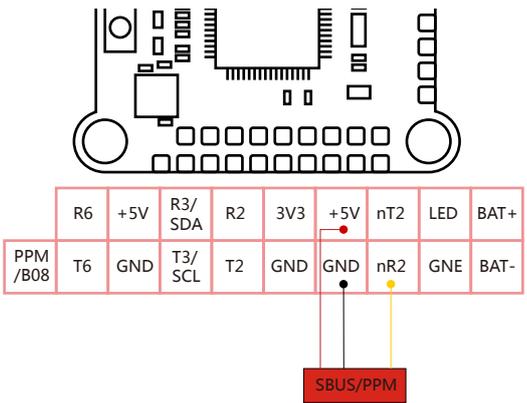
DJ220
 DJ220 PNP*1
 51499-3blade*2pairs
 Sticker*2
 battery strap*1
 Fixed seat*6
 Damping*6 (blue,red clear both 2pcs)
 Antenna rack*1
 ST2*6*2
 Video rack*2
 ST1.2*4*4
 M2*6*4

FC pin definition



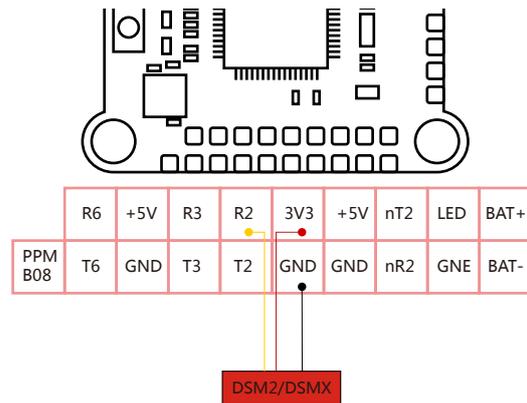
S.BUS and PPM receiver connection

Supply voltage is 5V
PPM or invert RX2 signal input



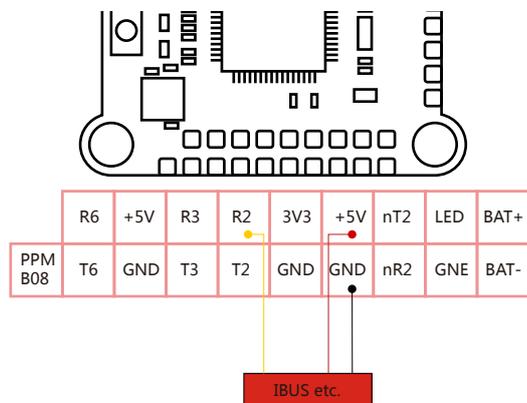
DSM2 and DSMX receiver connection

Supply voltage is 3.3V
NOT invert RX2 signal input



iBUS receiver connection

Supply voltage is 5V
NOT invert RX2 signal input



描述

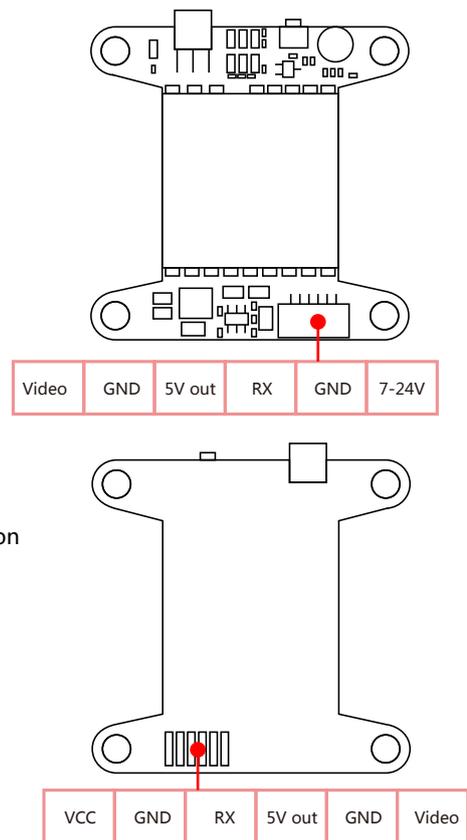
- Wide input voltage and low power consumption 7-24V
- 5V@1A high load output
- Up to 600mW of output power
- 48CH , With self-test output power function
- 30.5*30.5mm mounting size
- IRC-Tramp

Frequency and power control

- Button frequency control : shot press once to switch CH (CH1-CH8)
long press for 2s and then short press to switch frequency group FR (A-L)
- Button power control : Long press for 6s and then short press to switch power level 25/100/200/400/600mW

Note :

- Make sure output terminal is installed antenna before power on
- Pay attention to static electricity protection during transportation and installation

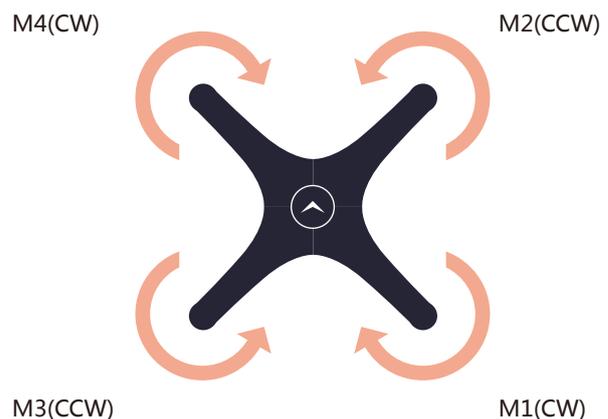
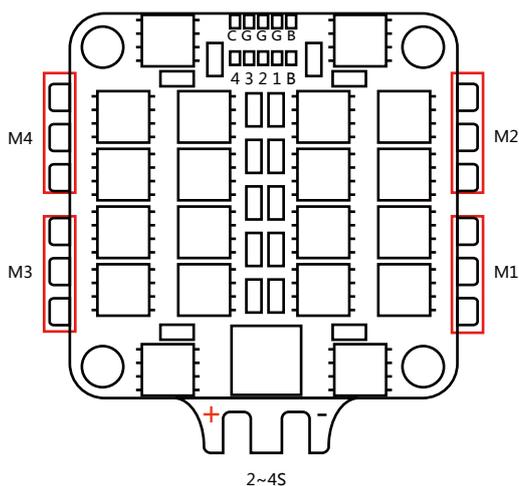


Power switching	25mW	100mW	200mW	400mW	600mW
FR	○ ○ ●	○ ● ○	● ○ ○	○ ● ●	● ● ●
CH	○ ○ ●	○ ● ○	● ○ ○	○ ● ●	● ● ●

Frequency table(Mhz)								
CH/Band	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
A ○ ○ ●	5865	5845	5825	5805	5785	5765	5745	5725
B ○ ● ○	5733	5752	5771	5790	5809	5828	5847	5866
E ○ ● ●	5705	5685	5665	5645	5885	5905	5925	5945
F ● ○ ○	5740	5760	5780	5800	5820	5840	5860	5880
R ● ○ ●	5658	5695	5732	5769	5806	5843	5880	5917
L ● ● ○	5362	5399	5436	5473	5510	5547	5584	5621

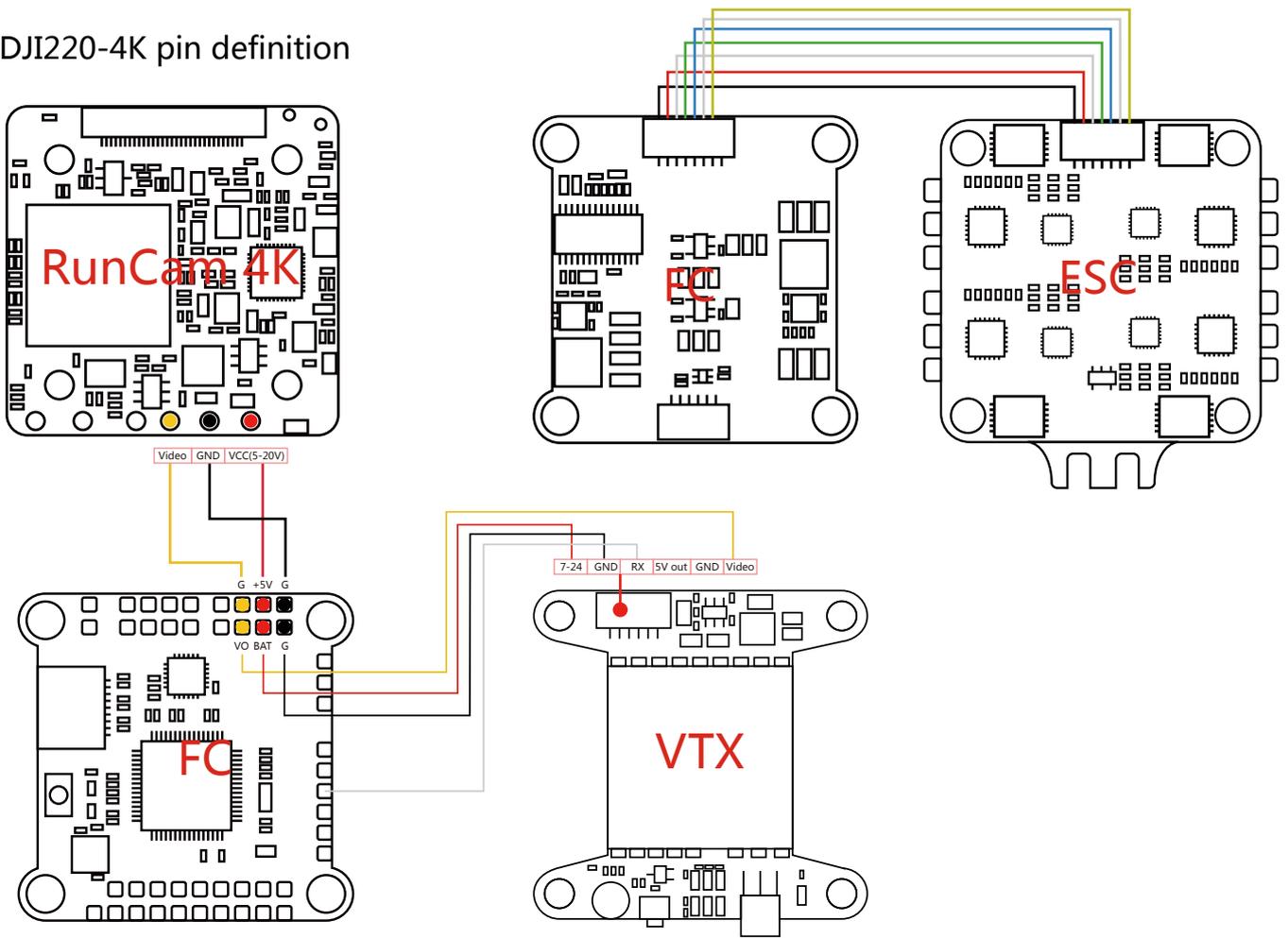
ESC

Motor

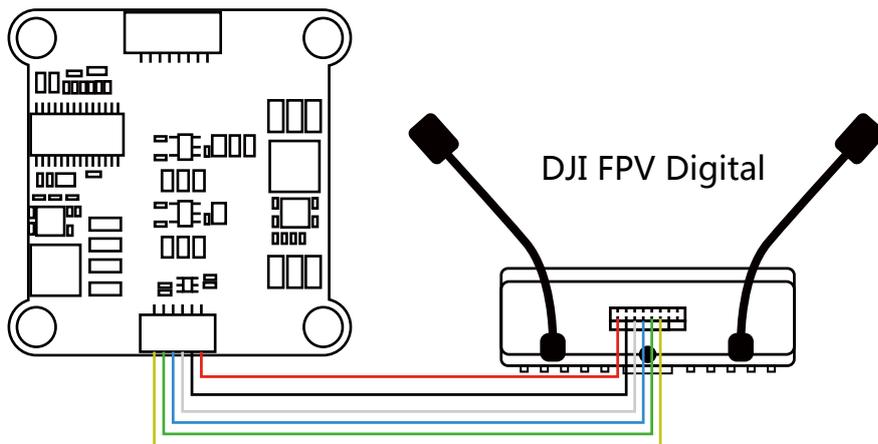


Note:pay attention to the direction of rotation of the motor when installing the prop

DJI220-4K pin definition



DJI220-Digital



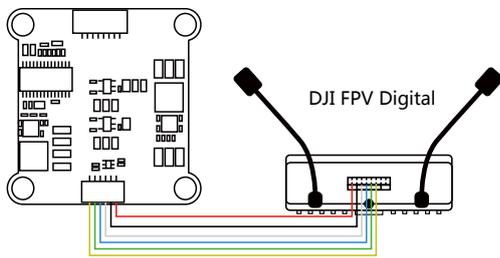
1.Remove the upper plate, and then stick the EVA on the upper plate



2.Remove the aluminum parts, then refer the picture to install the camera



3. Connect the FC and DJI FPV Digital well



4.The antenna is pre-installed with heat shrink tube



5. Install antenna and connect DJI FPV Digital



6.Install DJI FPV Digital

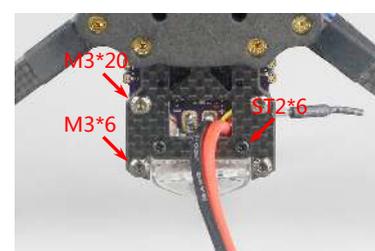
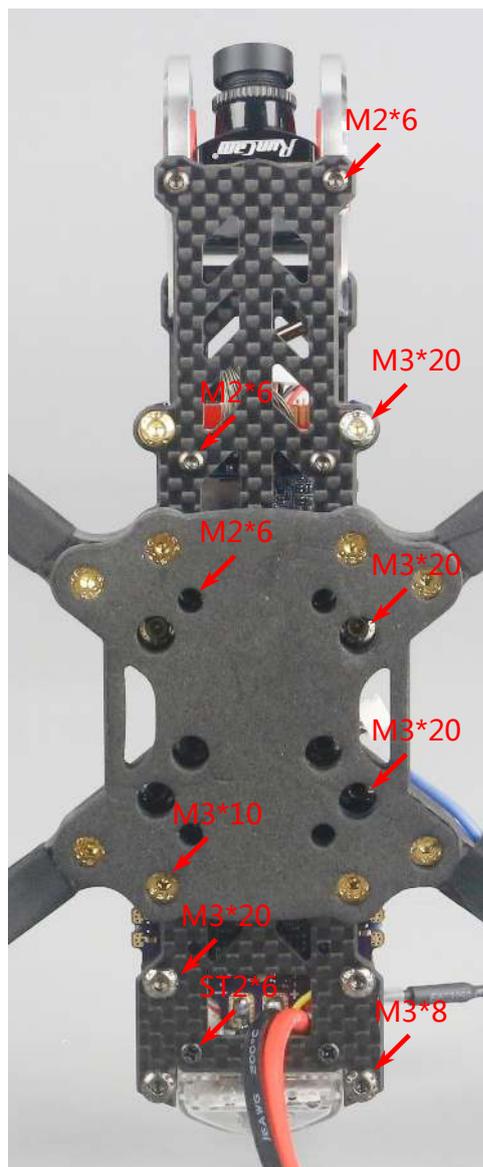
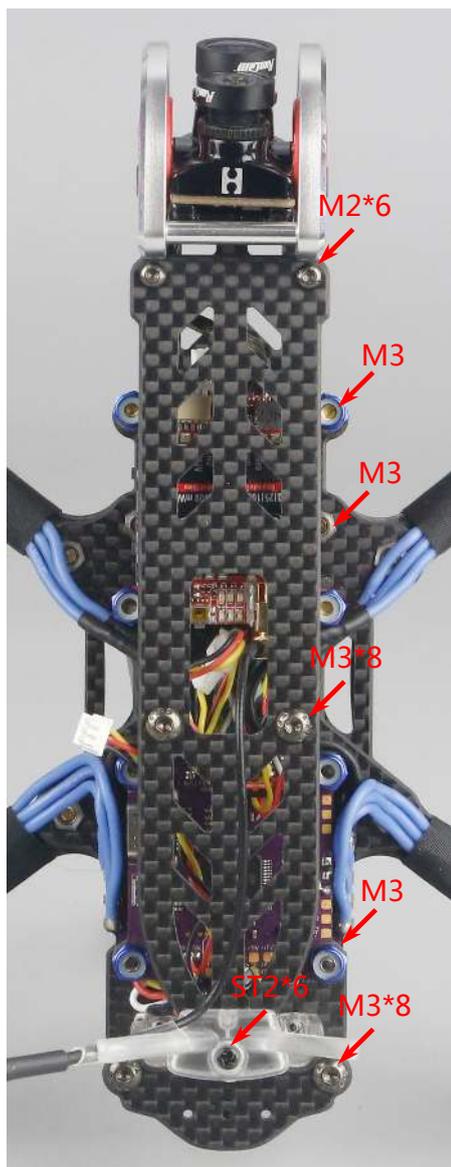


7.Install DJI FPV upper plate



8.Install antenna fixed seat

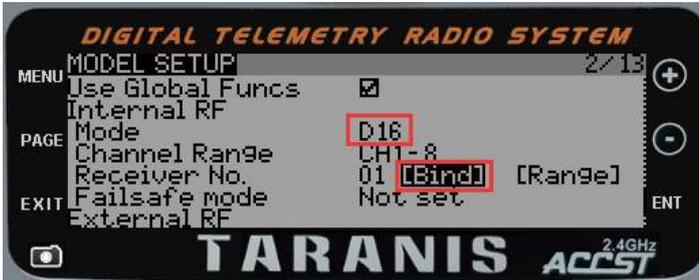




AC900(S-FHSS+D16) bind,transmitter(FRSKY X9D/Futaba T18SZ)

Bind:Check receiver mode before bind,the first blink after power on indicate the setting, ■ is S-FHSS, ■ is D16

FUTABA S-FHSS BIND:Turn on the TX then power on AC900 while pressing the key, green LED fast blink meaning already in bind mode, user can release the key. Bind procedure is completed and the receiver is working normally when green LED is solid
FRSKY D16(NO Telemetry) BIND:Power on AC900 while pressing the key, green LED fast blink meaning already in bind mode, user can release the key, then set your TX into D16 bind mode. red LED solid meaning bind finished, exit TX from bind mode, receiver' s green LED solid meaning working normally



Receiver Mode

- RX_PPM PPM RX input
- RX_SERIAL Serial-based receiver(SPEKSAT,SBUS,SUMD)
- RX_PARALLEL_PWM PWM RX input(one wire per channel)
- RX_MSP MSP RX input(control via MSP port)

Serial Receiver Provider

Note:Remember to configure a Serial Port(via Ports tab) and choose a Serial Receiver Provider When using RX_SERIAL feature.

- SPEKTRUM1024
- SPEKTRUM2048
- SBUS
- SUMD

FM800 bind (default S.BUS, nonsupport PPM), example (FUTABA T8FG)

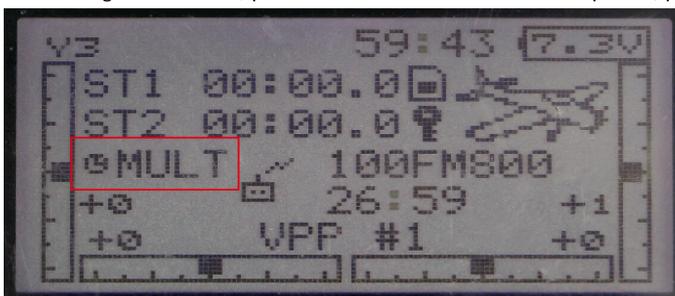
1. Open remote control, hold receiver bind button to power
2. Green light constant lighting means bind success

Note:

S.BUS and CPPM mode switch

Close remote control, press bind button 6S when red light flash, loosen until enter S.BUS and CPPM mode switch

1. Green light quick flashing, press bind button and disconnect power, power-on again, enter S.BUS mode
2. Green light slow flash, press bind button and disconnect power, power-on again, enter PPM mode



Receiver Mode

- RX_PPM PPM RX input
- RX_SERIAL Serial-based receiver(SPEKSAT,SBUS,SUMD)
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- SPEKTRUM1024
- SPEKTRUM2048
- SBUS
- SUMD

DSM bind, example (T-SIX)

1. Remote control in off state, bind button to power
2. Loosen until indicator light fast blink, enter to bind mode
3. Open remote control bind mode, indicator light constant lighting means bind success

Note 1:

DSMX uses SPEKTRUM1024 or SPEKTRUM2048 protocol, according to the remote control model to choose corresponding serial port protocol (example T-SIX, set protocol as SPEKTRUM1024)

Note 2:

DSMX remote control bind to DSM2 and DSMX receiver, but DSM2 remote control only bind to DSM2 receiver.

DSM2: Old SPEKTRUM and JR remote control protocol, widely-used with good compatibility.

DSMX: Newest SPEKTRUM remote control protocol, DSMX backwards compatible DSM2.



Receiver Mode ?

- RX_PPM PPM RX input
- RX_SERIAL Serial-based receiver(SPEKSAT,SBUS,SUMD)
- RX_PARALLEL_PWM PWM RX input(one wire per channel)
- RX_MSP MSP RX input(control via MSP port)

Serial Receiver Provider

Note:Remember to configure a Serial Port(via Ports tab) and choose a Serial Receiver Provider When using RX_SERIAL feature.

SPEKTRUM1024

SPEKTRUM2048

SBUS

SUMD

RX2A PRO Bind(S.BUS),transmitter(FLYSKY FS-i6)

BIND:Power on the receiver while pressing the key,green LED fast blink meaning already in bind mode, user can release the key,then set your TX into bind mode.Green LED turn off and red LED solid mean bind finished, exit TX from bind mode,receiver'sgreen LED solid mean working normally.



Receiver Mode ?

- RX_PPM PPM RX input
- RX_SERIAL Serial-based receiver(SPEKSAT,SBUS,SUMD)
- RX_PARALLEL_PWM PWM RX input(one wire per channel)
- RX_MSP MSP RX input(control via MSP port)

Serial Receiver Provider

Note:Remember to configure a Serial Port(via Ports tab) and choose a Serial Receiver Provider When using RX_SERIAL feature.

SPEKTRUM1024

SPEKTRUM2048

SBUS

SUMD

Firmware Update

BETAFLIGHT firmware already flash before leave the factory,user just need connect PC to adjust the parameter

1.Open betafight configuration ,then click  Firmware Flasher ,select FW version

BETAFLIGHTF4

4.0.4- **BETAFLIGHTF4** -01-07-2019 20:36(stable)

No reboot sequence

Flash on connect

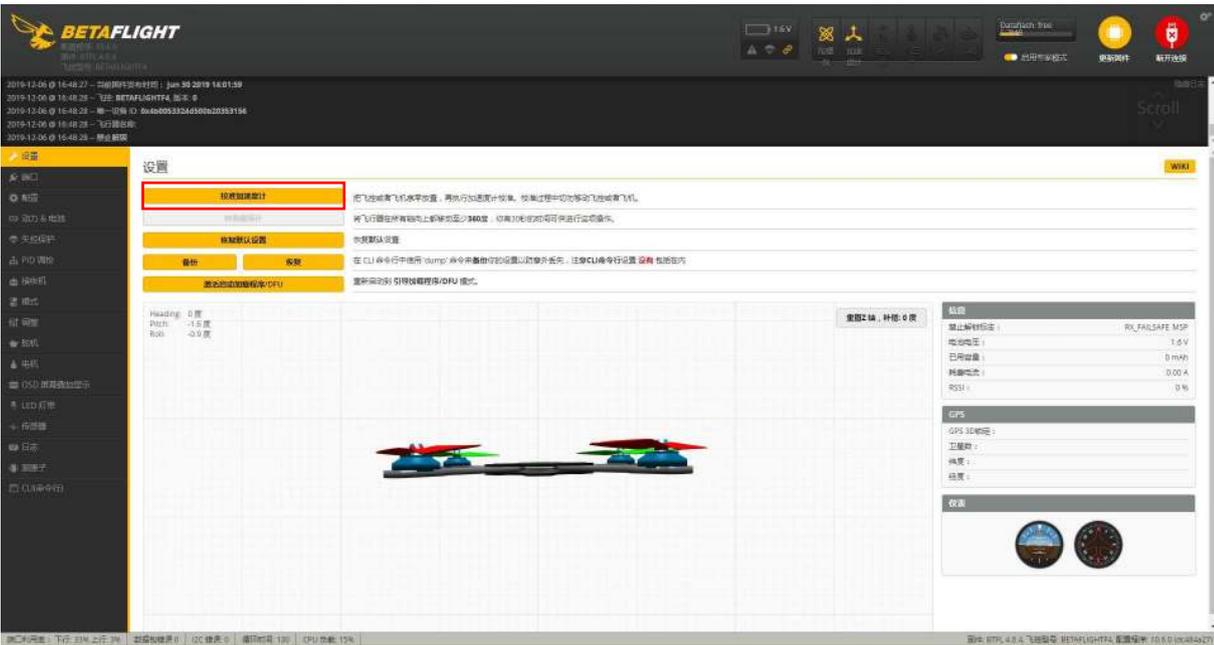
Full chip erase

Manual baud rate

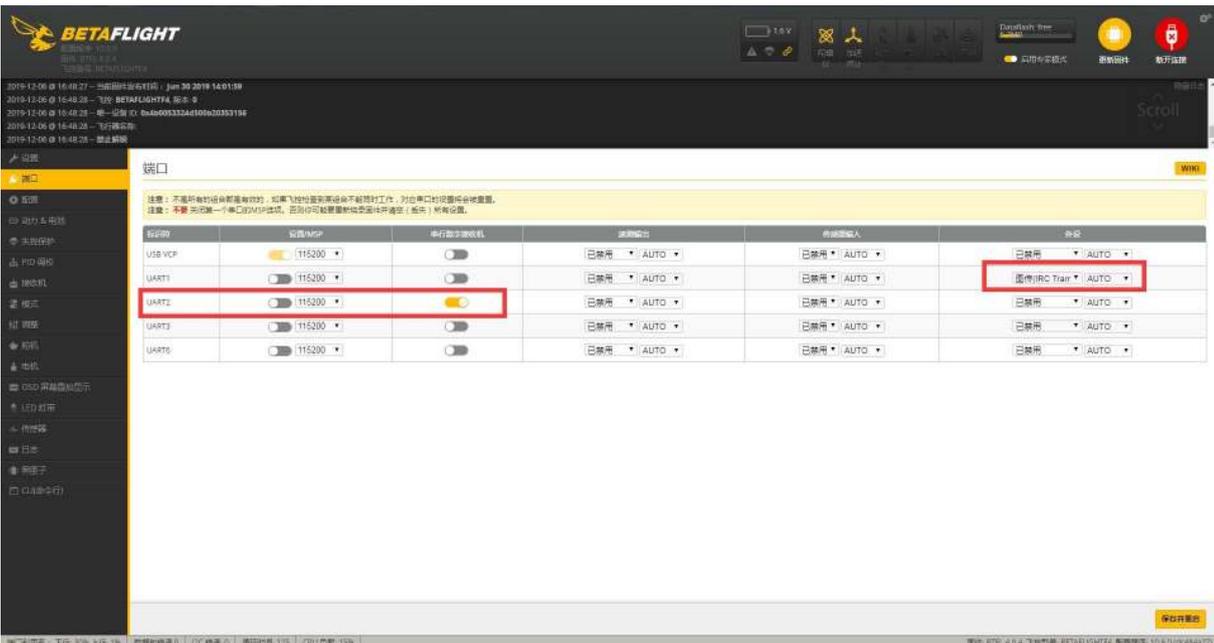
Show unstable releases

2.Click **Load Firmware[Online]** ,then click **Flash Firmware** to download FW to FC, click  after FW updating finish into setting menu

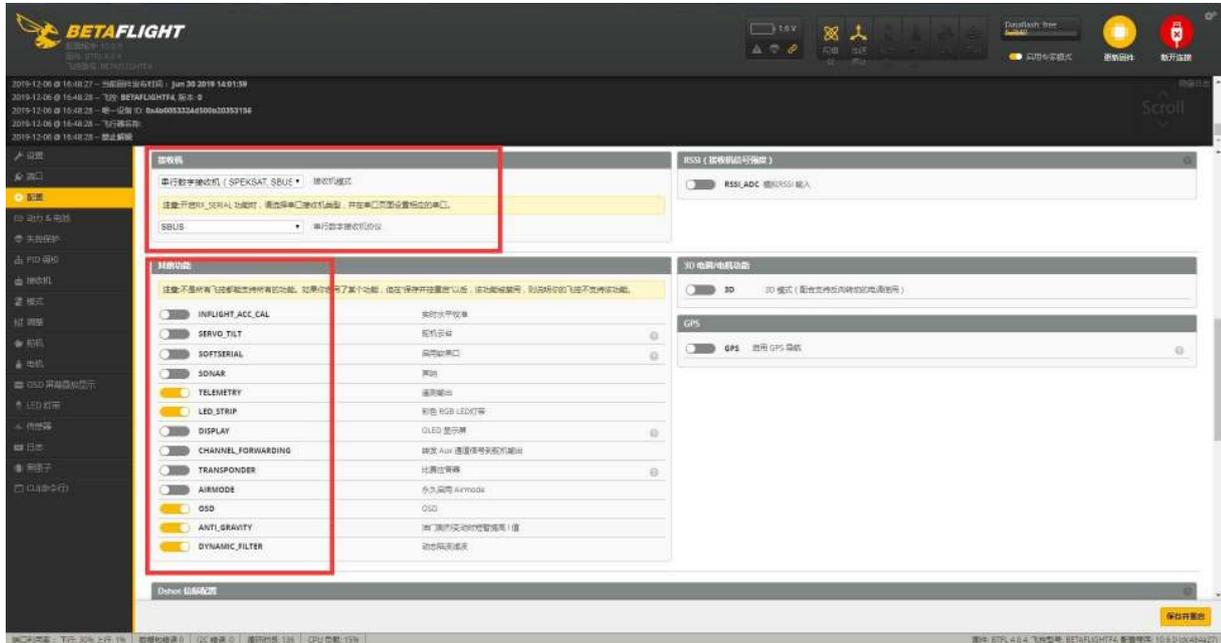
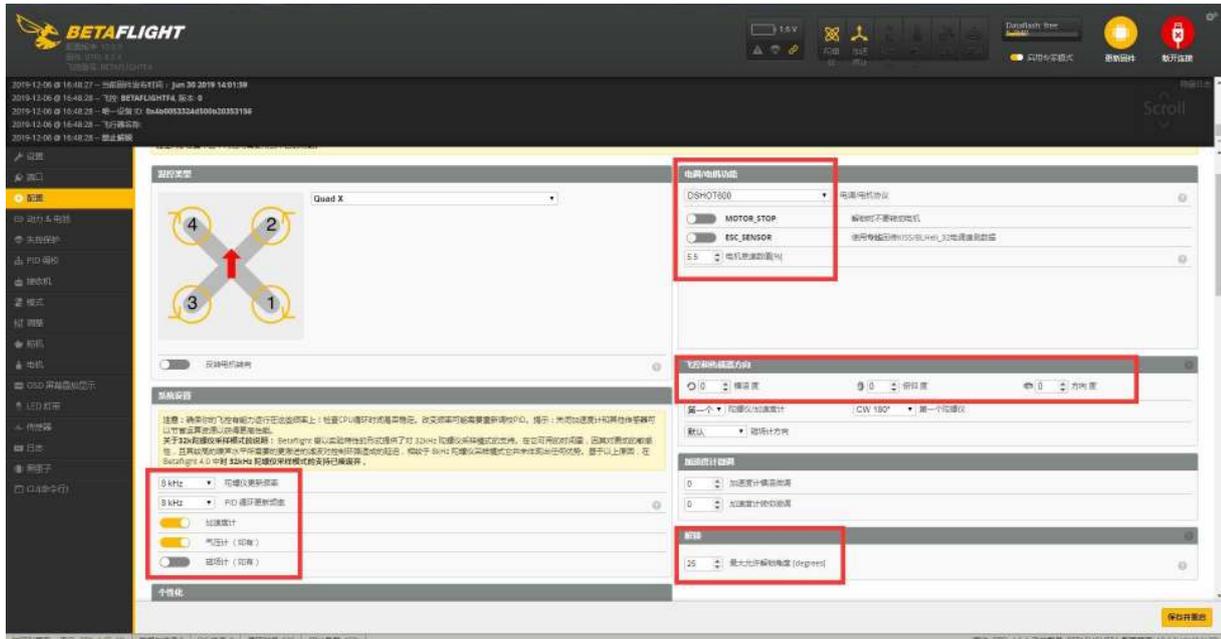
3.Calibration "Calibrate Accelerometer"



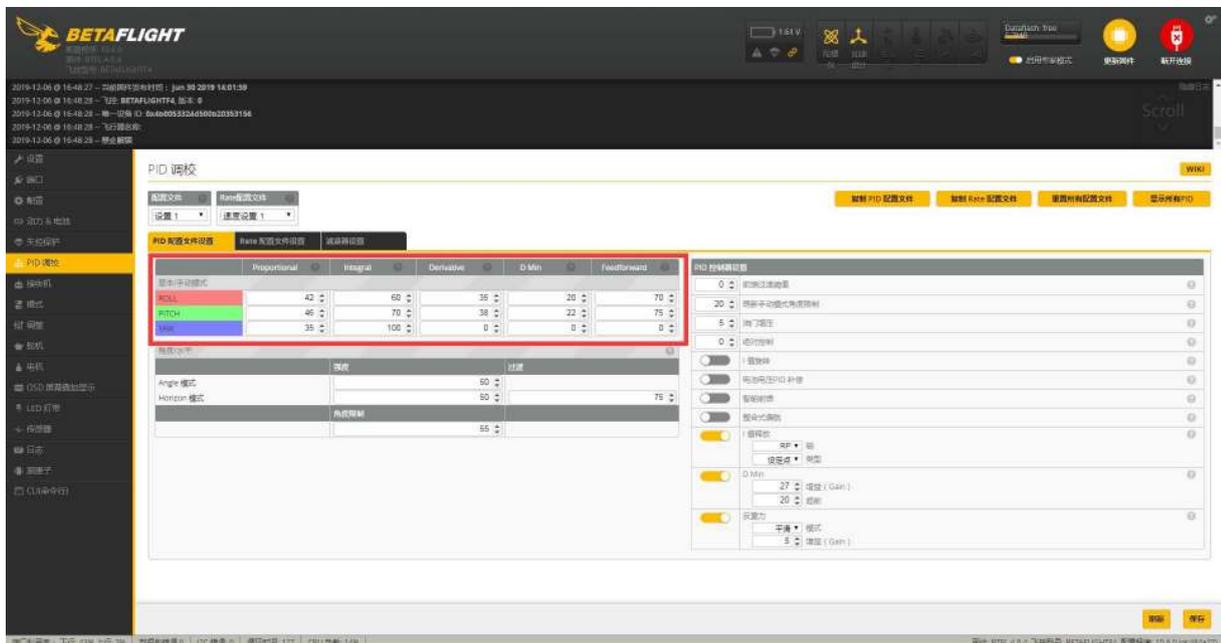
4.Port , open UART2 switch



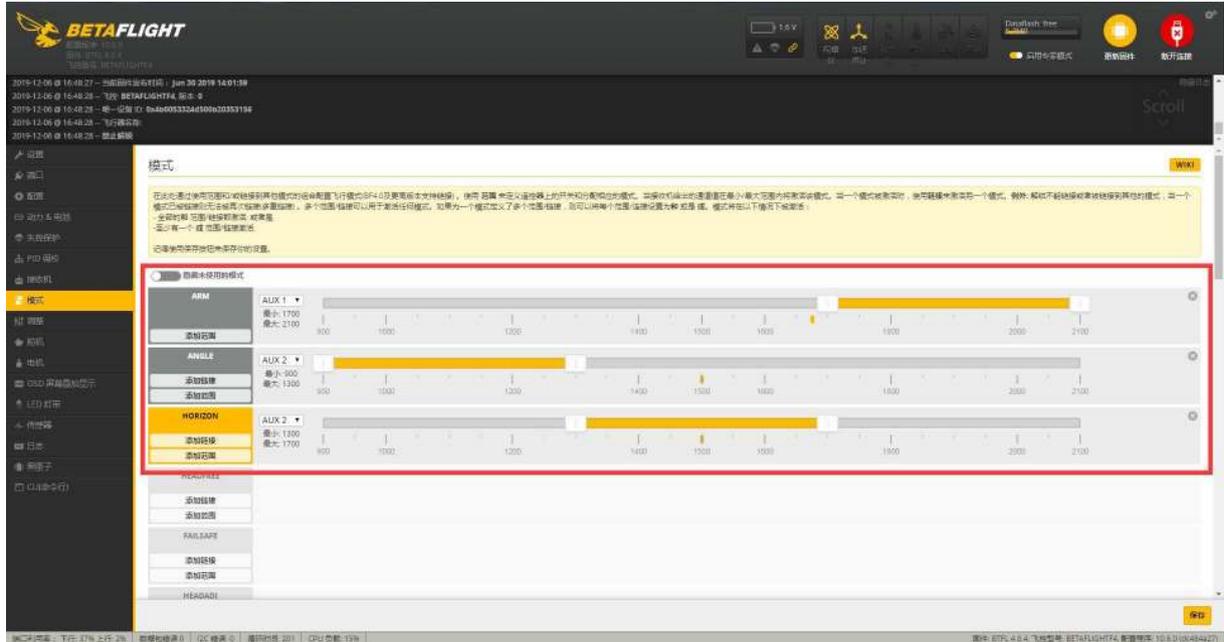
5. Select ESC protocol is DSHOT600, then follow the steps to set up



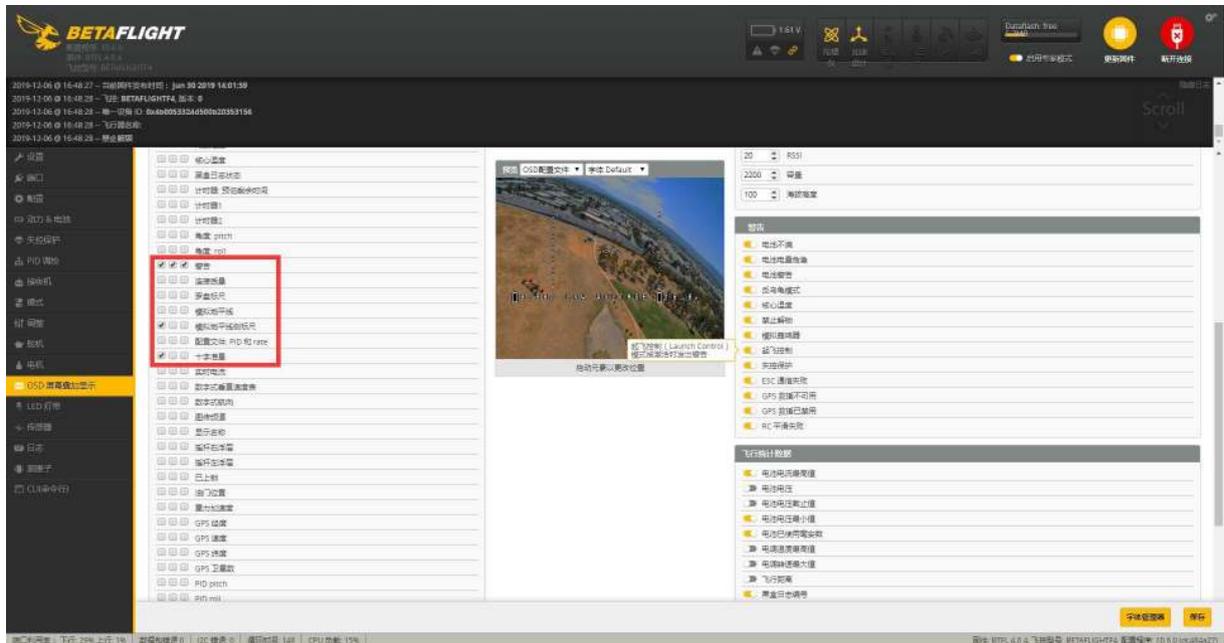
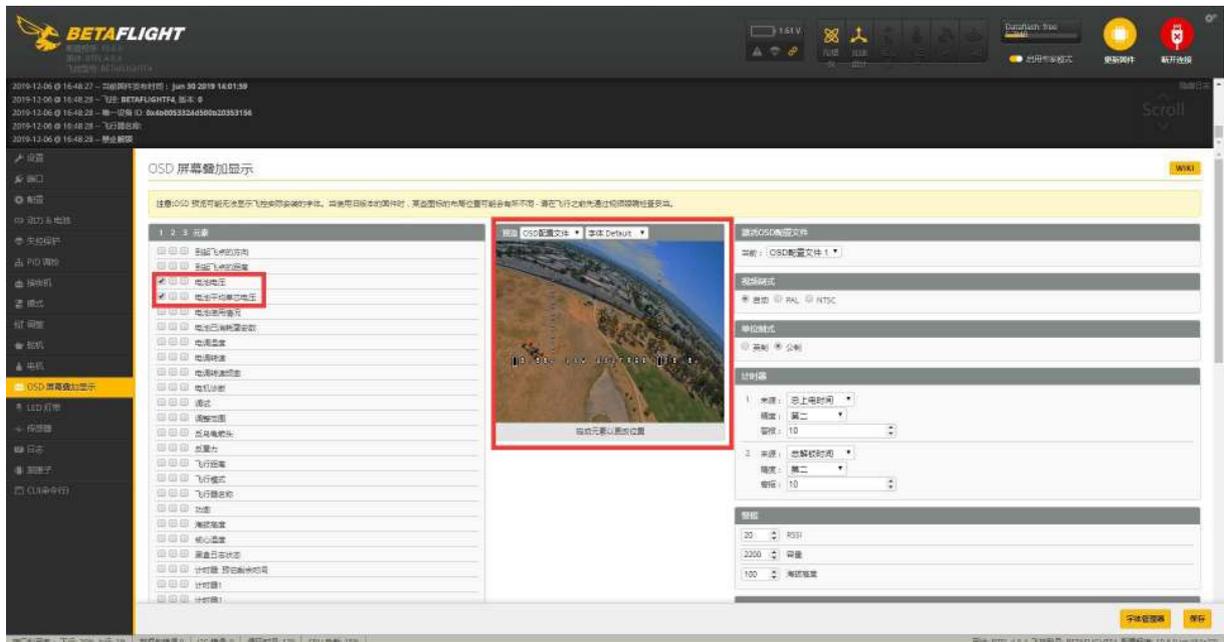
6. PID setting



7.Mode setting



8.OSD setting



Product and Factory Code

Name	Factory Code
DJ220-Digital	PNP.DJ220-DIGITAL
DJ220-4K NO RX	PNP.DJ220-4K NO RX
DJ220	PNP.DJ220
DJ220 KIT	KIT.DJ220
DJ220 arm frame	PART.DJ220 ARM FRAME
XT2306-2500KV	MOTOR.XT2306-2500KV
KKT30-C2	FLYTOWER.KKT30-C2
KKT30-F4D	FC.KKT30-F4D
KKT30-E40A	ESC.KKT30-E40A
KKT30-V600	VTX.KKT30-V600

After Sale Service

1. Provide free reparation service when find the product defect after purchase.
2. Provide pay-needed reparation service when product damage because improper operation.
3. China customers please contact with the after-sales service, overseas client please contact the dealer.

PNP/RTF Test report ID :

Flight test

- Transmitter functions properly
- Flying in good condition
- Camera OK
- VTX OK

QC: _____

Package check

- PNP
- RTF
- Frame
- Transmitter
- ID is the same
- All parts of the installation
- Insulating sleeves have been installed manual
- Complete accessories, total ____ packages

QC: _____