

HD140 PNP

Manual

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PRODUCT>>MULTROTOR>>ET SERIES>>HD140 PNP



HD140 manual



Caddx.US Turtle V2

Configuration



Description

Wheelbase : 140mm

Drone weight :

159.8g(HD)/151.6g(FPV) **weight not include receiver and battery**

Package size : 214*184*90mm

Package weight : 565.8g(HD)/550.1g(FPV)

Bumper : 2.8 inch all surround

Plate : PCB 2mm , Carbon plate 3mm

Camera angle : 15-50°

Mounting size : Flytower 20*20mm , Motor Φ9mm M2*9 , Camera 14mm/19mm

KK Tower new name :

KKT16 mounting size 16*16mm

KKT20 mounting size 20*20mm

KKT30 mounting size 30.5*30.5mm

Configuration

FC : KKT20-F411 Old name : F411+OSD (KK tower part)

ESC : KKT20-E20A Old name : 4in1 20A (KK tower part)

VTX : KKT20-V200 Old name : VTX (KK tower part)

Camera : Caddx.US Turtle V2(HD)/RunCam Nano2(FPV)

Motor : XT1305-3600KV

Prop : 2840-3blade

Battery : 14.8V 430mAh 80C

Receiver : AC2000 DUAL-CORE TRI-MODE

(S-FHSS+ACCST(D16 non-EU,D16 EU-LBT))

Package list



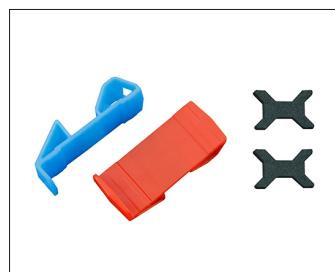
PNP*1



14.8V 430mAh*1



2840-3blade*4Pairs
M2*8*8Pcs



TPU samll landing gear*2
EVA*2



Sport camera seat*1



TPE damping*1



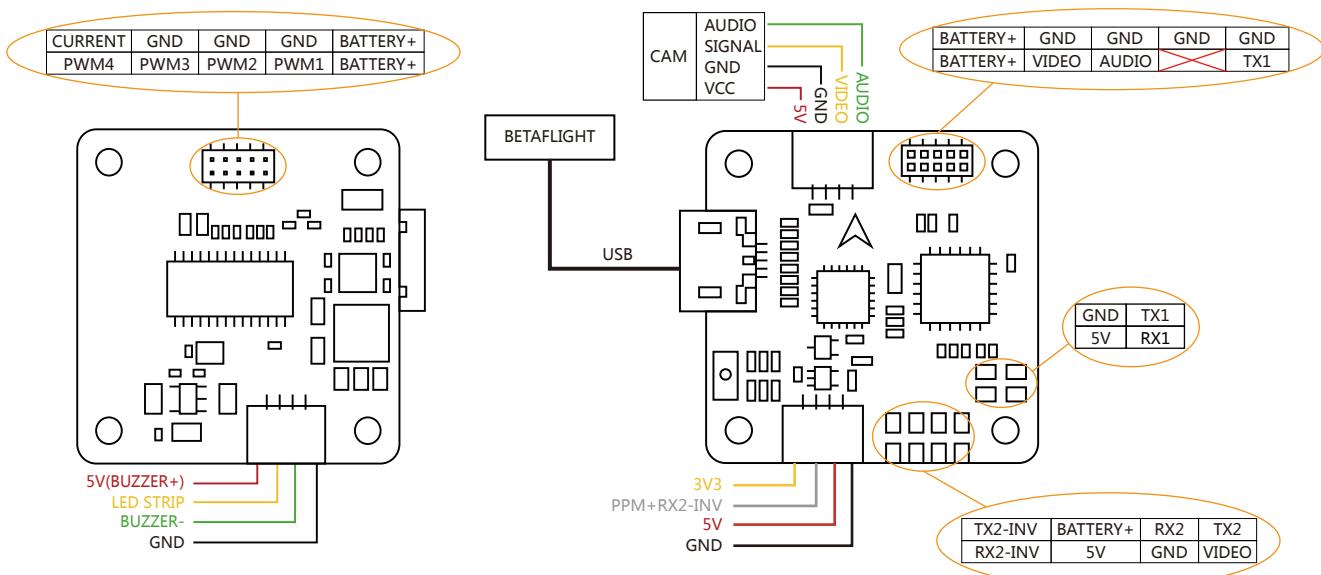
Battery tie*1



Sticker*1

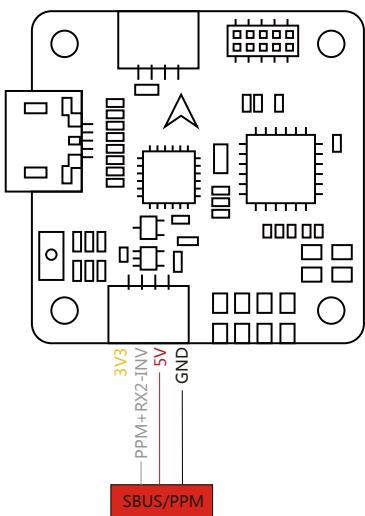
Note : HD140 FPV version have mounting of the sport camera seat in drones

Pin definition



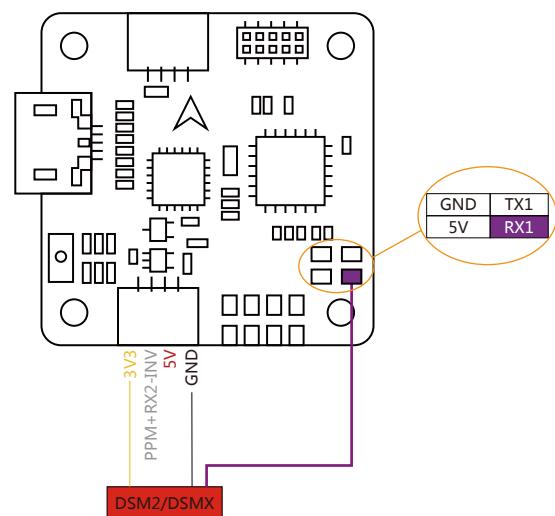
S.BUS and PPM receiver connection

Supply voltage is 5V
PPM or invert RX2 signal input



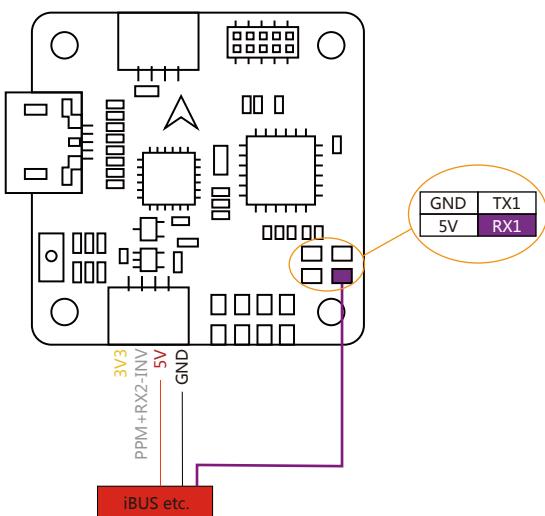
DSM2 and DSMX receiver connection

Supply voltage is 3.3V
NOT invert RX2 signal input

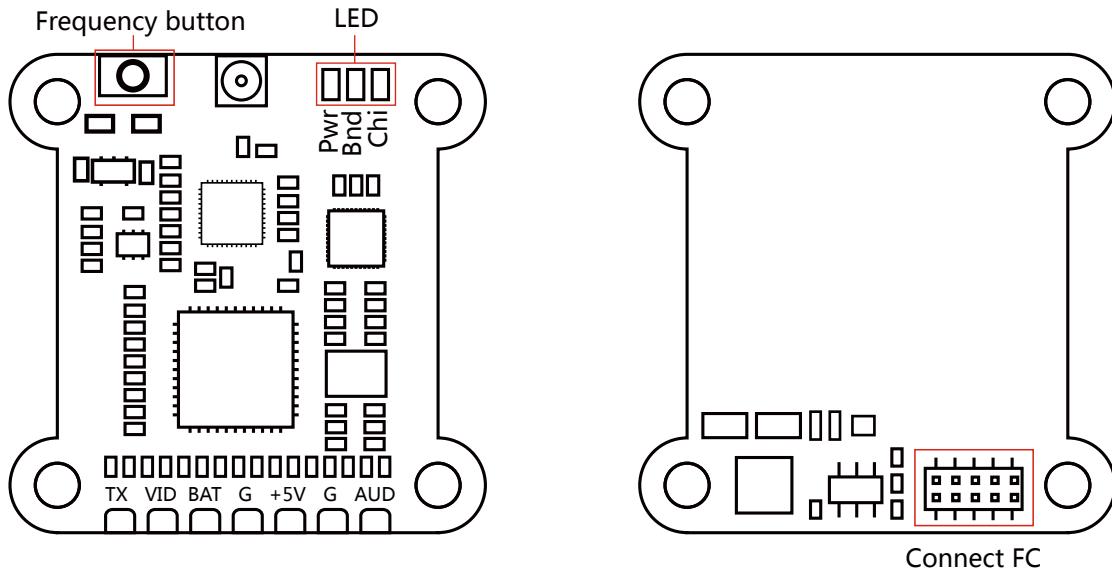


iBUS receiver connection

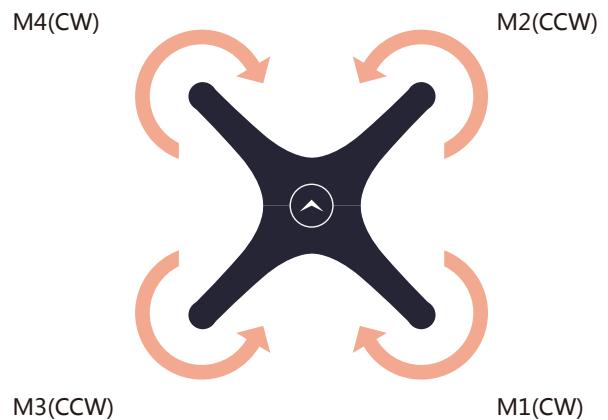
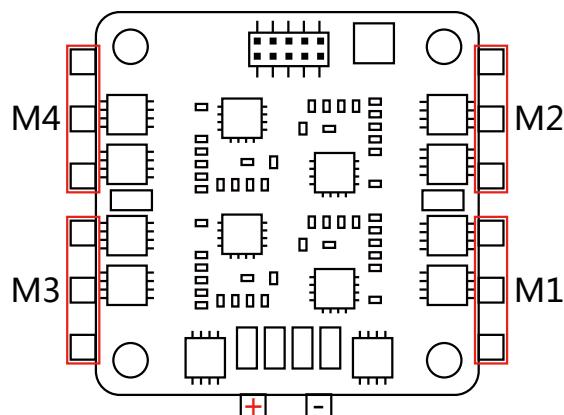
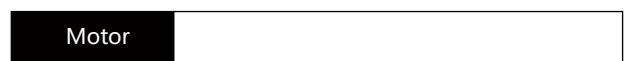
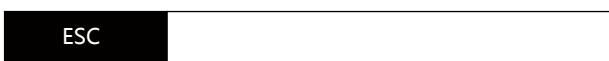
Supply voltage is 5V
NOT invert RX1 signal input



	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
Band A	5865	5845	5825	5805	5785	5765	5745	5725
Band B	5733	5752	5771	5790	5809	5828	5847	5866
Band E	5705	5685	5665	5645	5885	5905	5925	5945
Band F	5740	5760	5780	5800	5820	5840	5860	5880
Band H	5658	5695	5732	5769	5806	5843	5880	5917
Band R	5362	5400	5436	5473	5510	5547	5584	5620

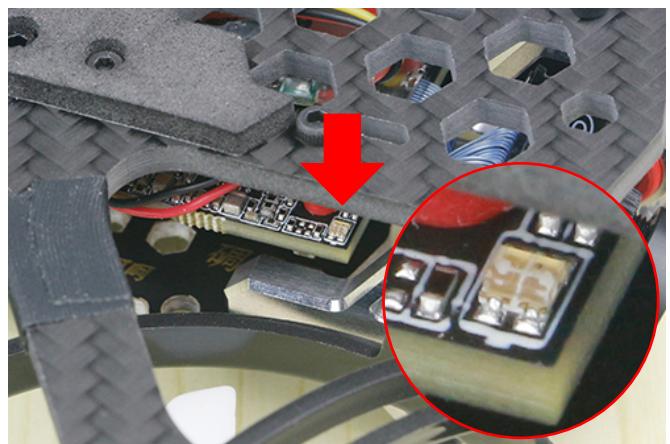
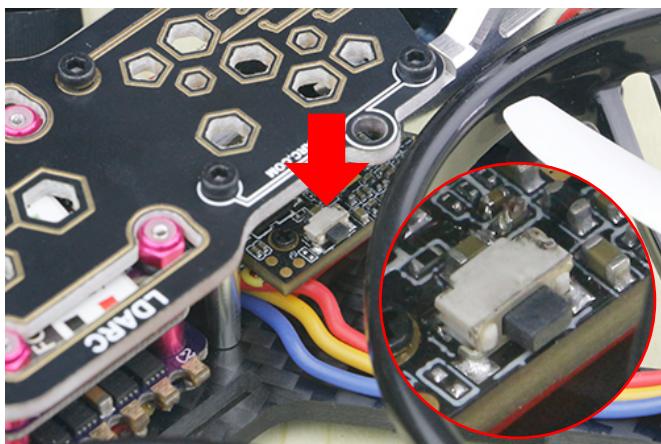


Blue LED is channel (CH) indicator, flash 1~8 times mean CH-1~8. **Green** LED is band(BD) indicator, flash 1~6 times mean BAND-A~F. **Red** is output power(PW) indicator, flash 1~3 times mean 25mW/100mW/200mW output power. In normal working state, quickly double-click button, R/G/B sync flash mean VTX turned off, and also quickly double-click can turn on the VTX. In normal working state, press and hold the key for 3s, only blue led flashes, now click the key change channel(CH). press and hold the key for 3s, only blue green flashes, now click the key change band(BD) . press and hold the key for 3s, only red led flashes, now click the key change output power(PW).



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

1.HD Recording operation : Short press for 1S , start recording , red LED flashes ; short press for 1s , recording end , red LED is always on .



2.FPV Recording operation : It canable to mounting the most of sport camera , and 3 shift angle adjusted



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

<input type="radio"/> RX_PPM	PPM RX input
<input checked="" type="radio"/> RX_SERIAL	Serial-based receiver(SPEKSAT,SBUS,SUMD)
<input type="radio"/> RX_PARALLEL_PWM	PWM RX input(one wire per channel)
<input type="radio"/> 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

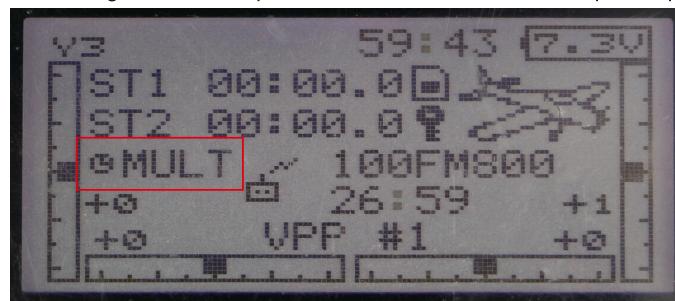
Note:

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

<input type="radio"/> RX_PPM	PPM RX input
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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:

DSM2 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

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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's green LED solid mean working normally.



Receiver Mode

<input type="radio"/> RX_PPM	PPM RX input
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Serial Receiver Provider

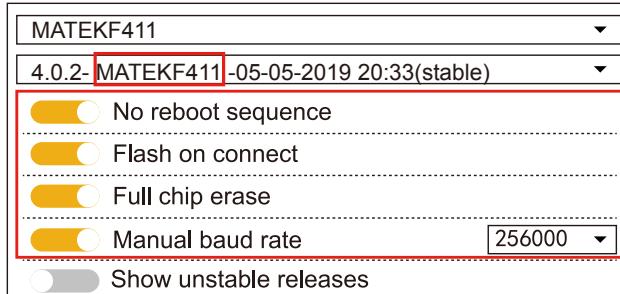
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SPEKTRUM1024
SPEKTRUM2048
SBUS
SUMD

Firmware Update

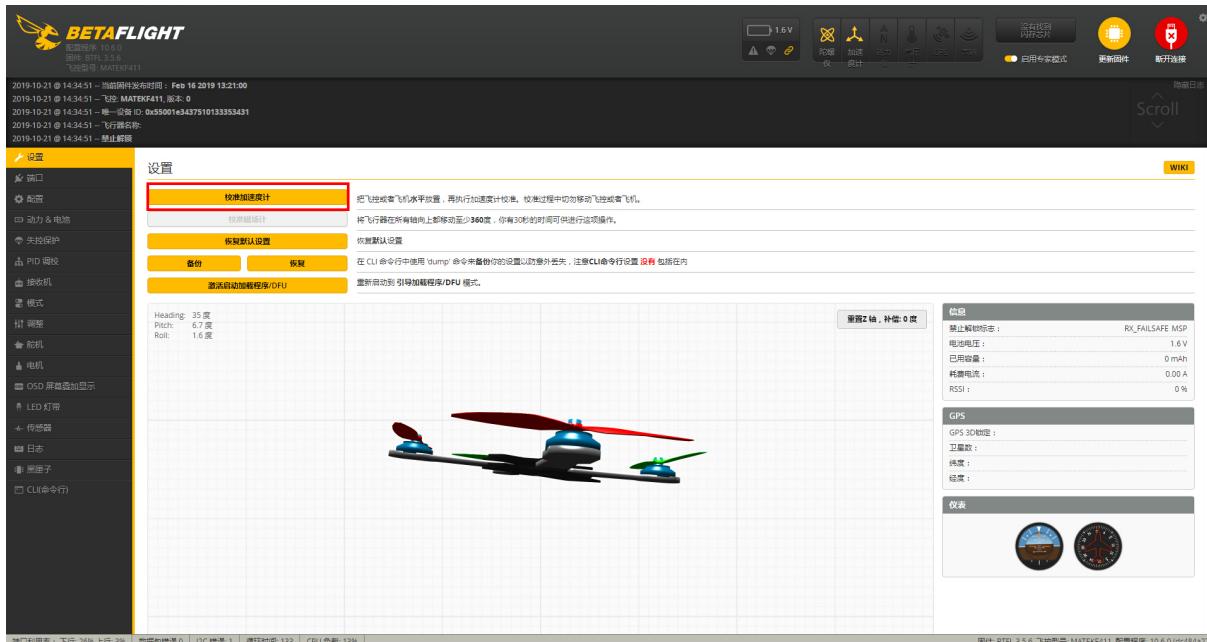
BETAFLIGHT firmware allready flash before leave the factory,user just need connect PC to adjust the parameter

1. Open betaflight configuration  , then click  , select FW version

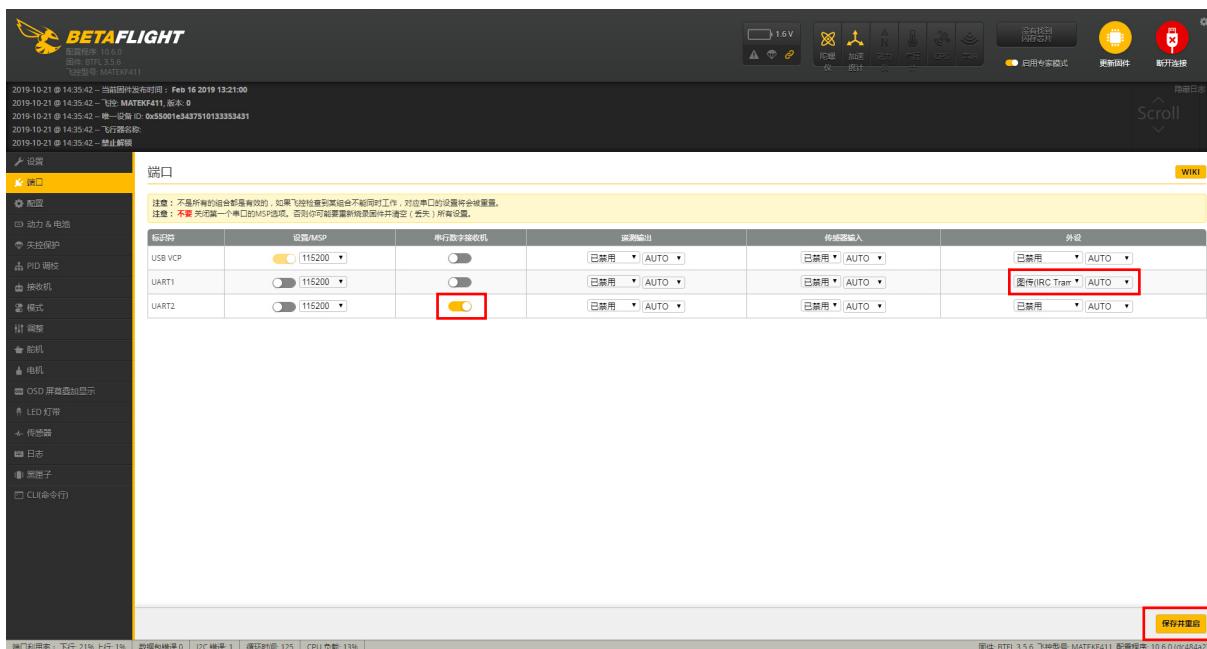


2. Click  , then click  to download FW to FC, click  after FW updating finish into setting menu

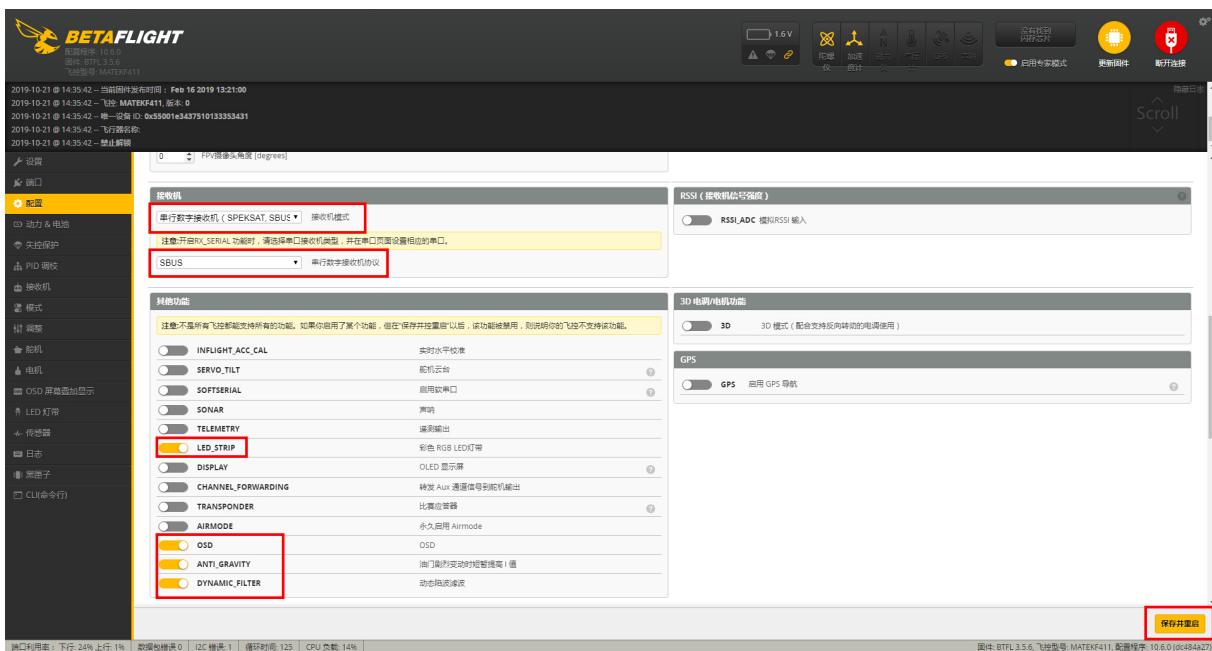
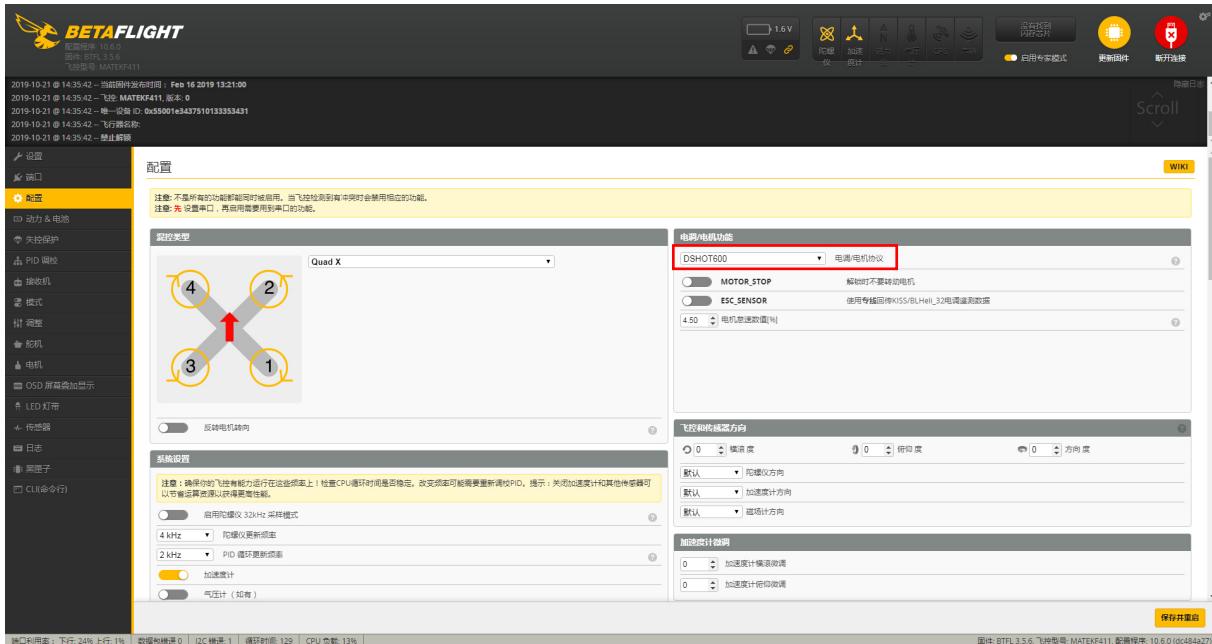
3. Calibration "Calibrate Accelerometer"



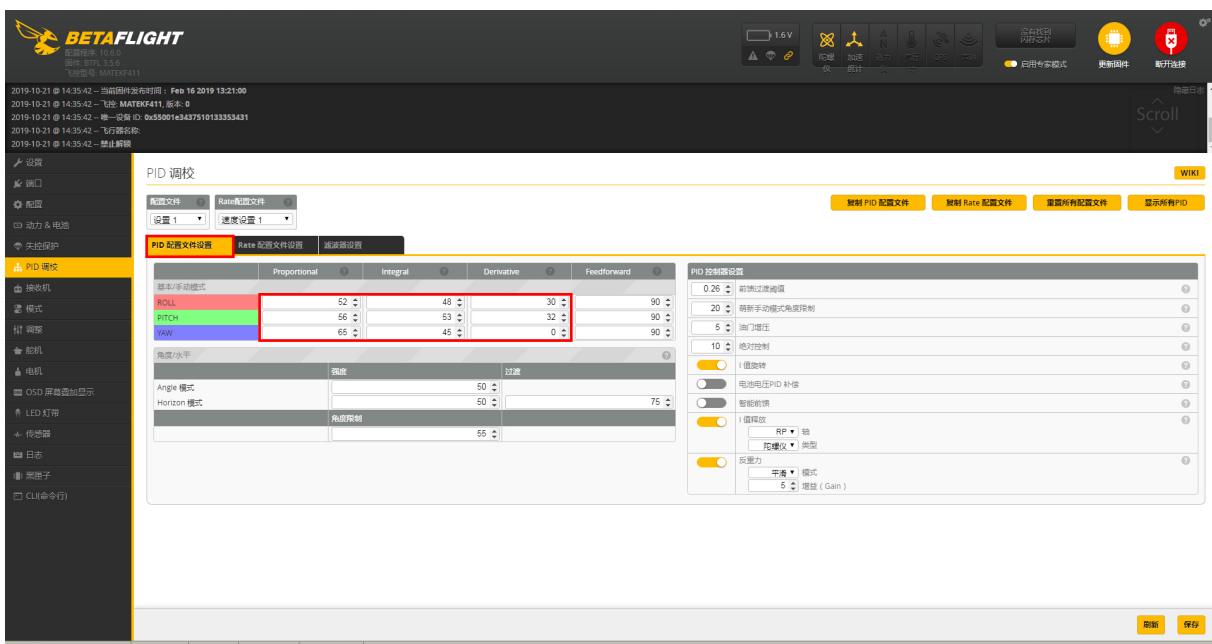
4. Open UART2 and saved

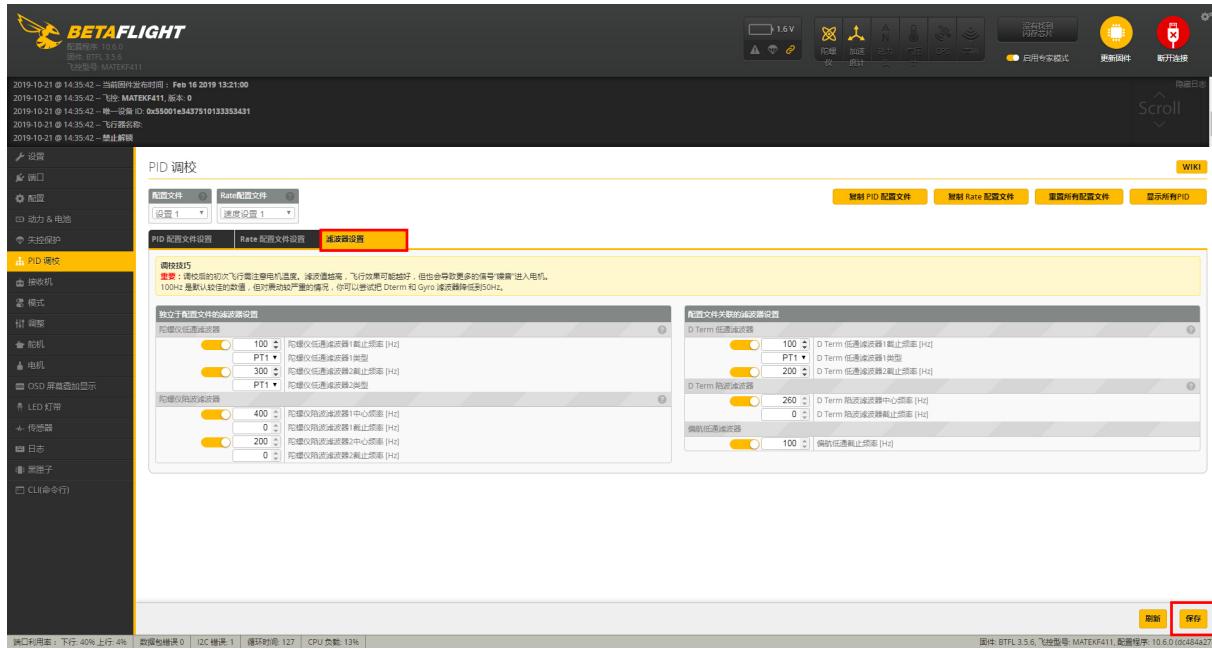
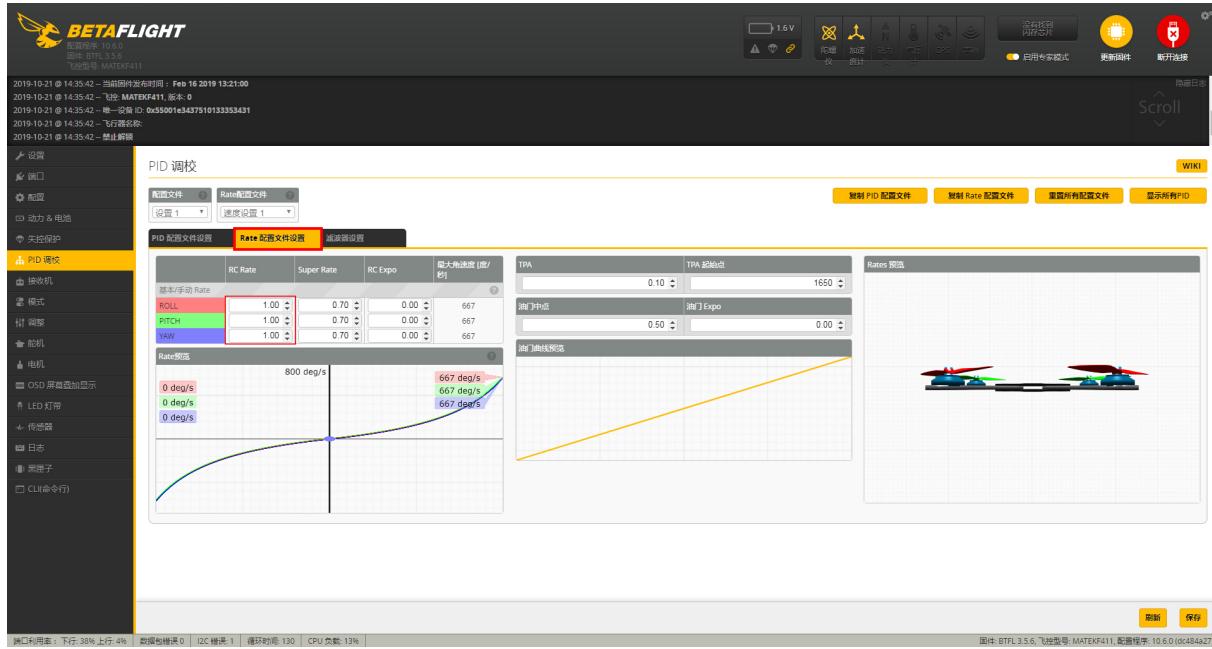


5. Select ESC protocol is DSHOT600, then follow the steps to set up

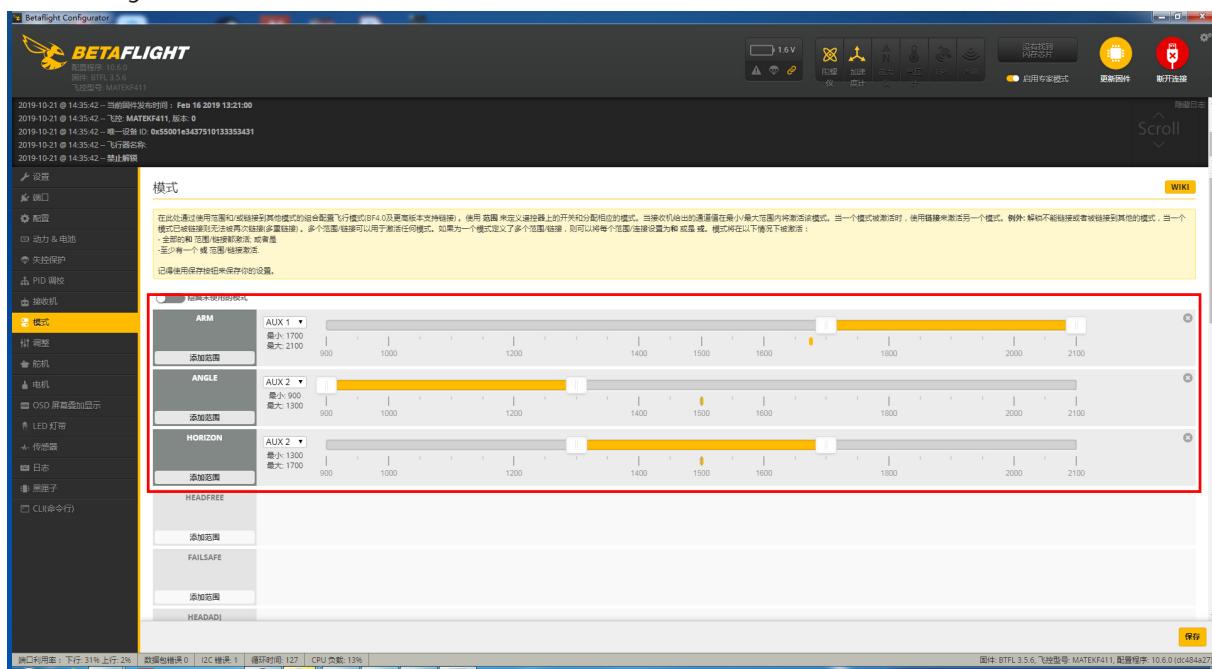


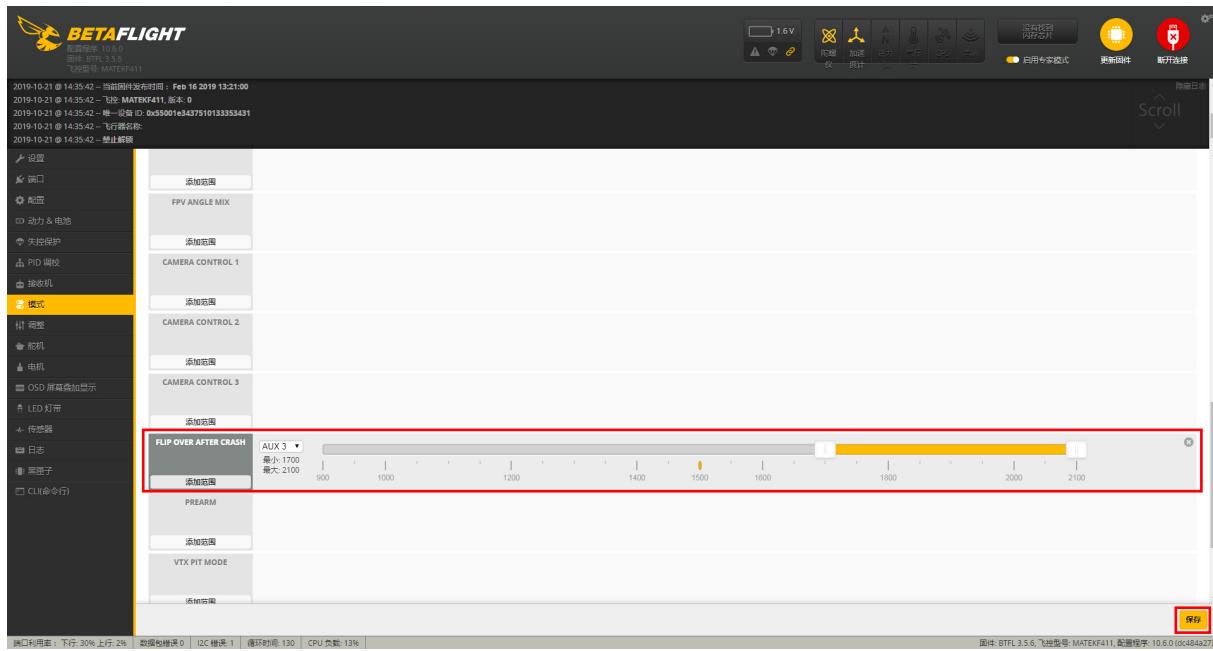
6. PID setting



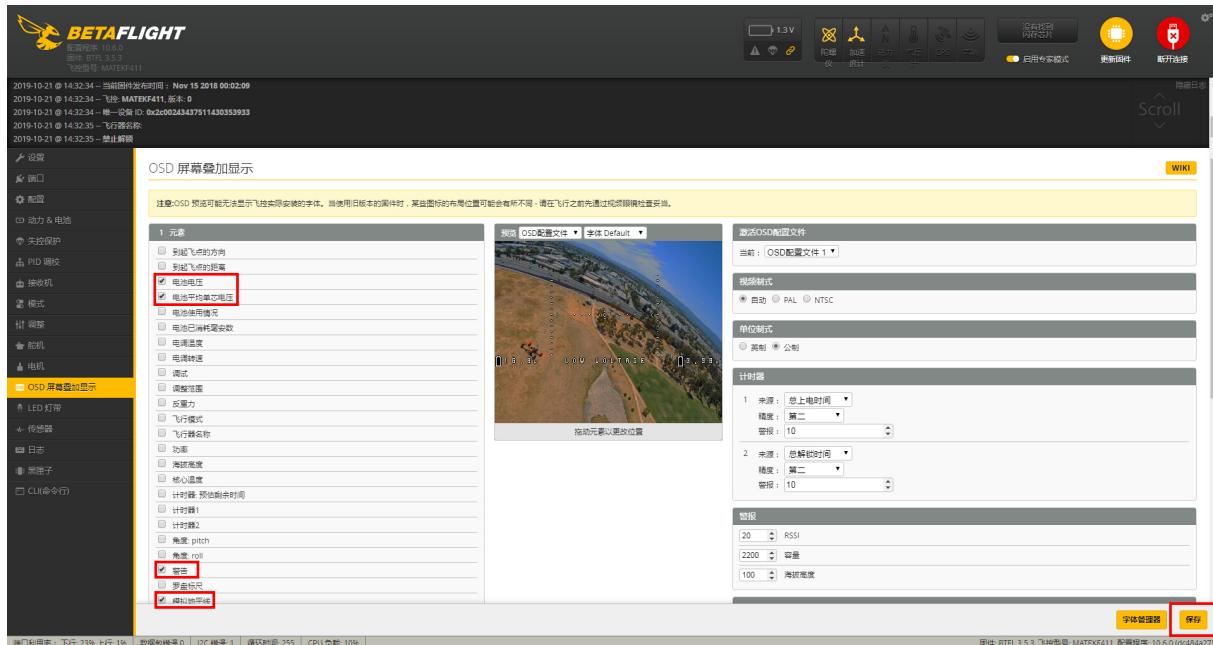


7. Mode setting

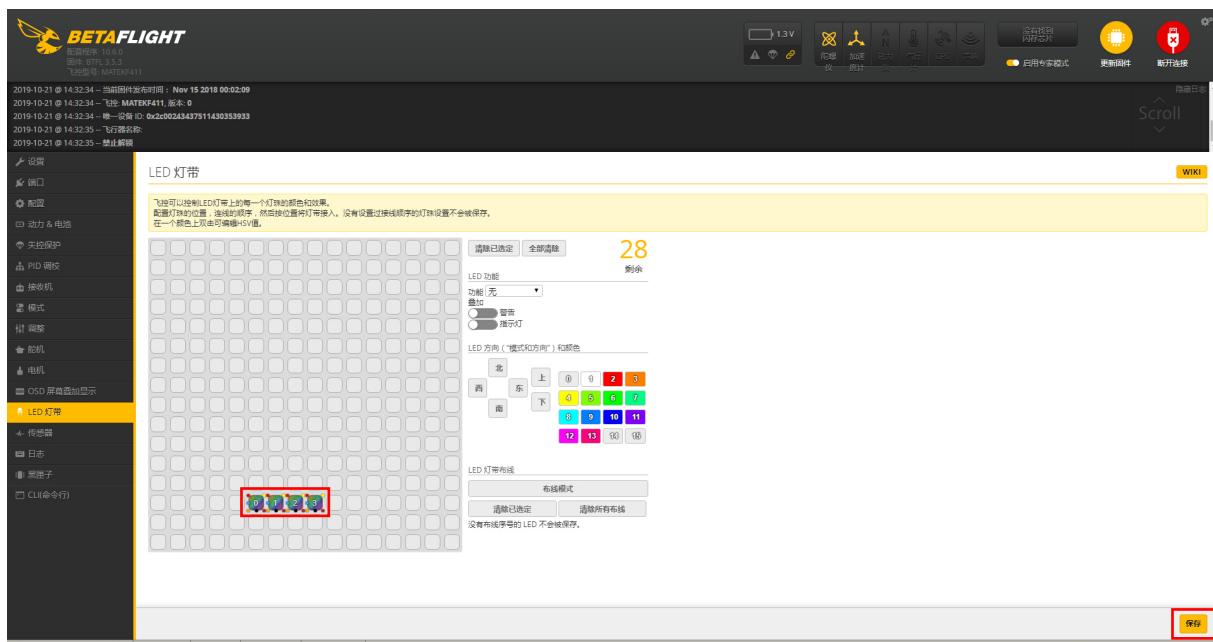




8.OSD setting



9.LED setting



Product and Factory Code

Name	Factory code
HD140 NO RX	PNP.HD140.NO RX
HD140-FPV NO RX	PNP.HD140-FPV.NO RX
HD140 AC2000	PNP.HD140.AC2000
HD140-FPV AC2000	PNP.HD140-FPV.AC2000
HD140 KIT	KIT.HD140
14.8V 430mAh 80C	BAT.14.8V 430MAH 80C
RunCam Nano2	CAM.Nano2 (700TVL 1/3' CMOS NTSC)
2.8 inch all surround bumper	2.8 INCH PROTECTOR BUMPER(ALL)
HD140 body frame	PART.HD140 BODY FRAME
HD140 aluminum frame	PART.HD140 ALUMINUM FRAME
ET-HD-LED+Buzzer	PART.ET-HD-LED+BUZZER
2840-3blade	PROP.2840.3.WHITE
XT1305-3600KV	MOTOR.XT1305-3600KV
KKT20-B4	FLYTOWER.KKT20-B4
KKT20-F411	FC.KKT20-F411
KKT20-E20A	ESC.KKT20-E20A
KKT20-V200	VTX.KKT20-V200
KKT20 3-layer screw	PART.KKT20 3-LAYER SCREW
KKT20 wire	PART.KK TOWER WIRE
TPU samll landing gear	PART.TPU SAMLL LANDING GEAR

After Sale Service

- Provide free reparation service when find the product defect after purchase.
- Provide pay-needed reparation service when product damage because improper operation.
- 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: _____