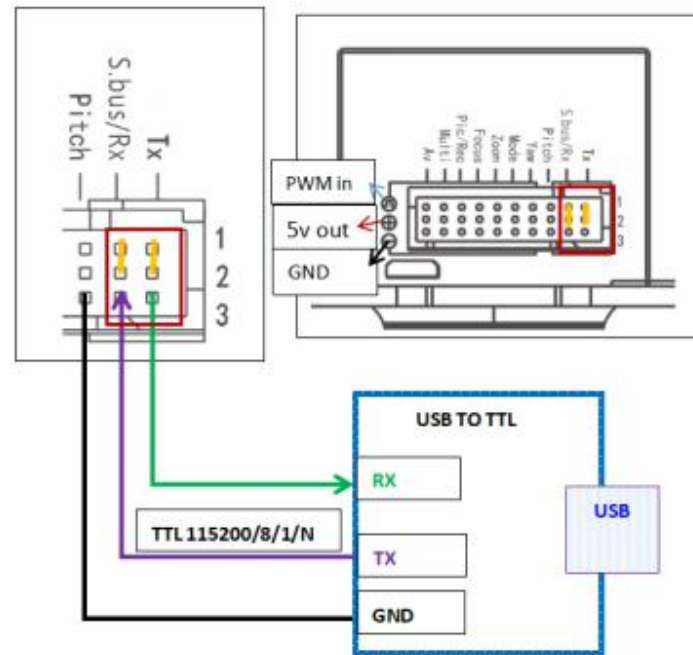


## S.Bus Settings & Serial port Settings

### 1. How to use USB to TTL cable to connect gimbal series port? ( All tests should be performed when gimbal power on )

- 1) Find a cable of USB to TTL, connect USB port to computer and a com port number will be recognized on computer device manager.
- 2) For the TTL end (Red 5V, Black GND, White RXD, Green TXD), RX, TX and GND are required when connecting the gimbal
- 3) Connection method: black Wire GND---- Gimbal GND  
 Green Wire TX--- RX silk printed on the gimbal controller Z-3D  
 White Wire RX--- TX silk printed on the gimbal controller Z-3D

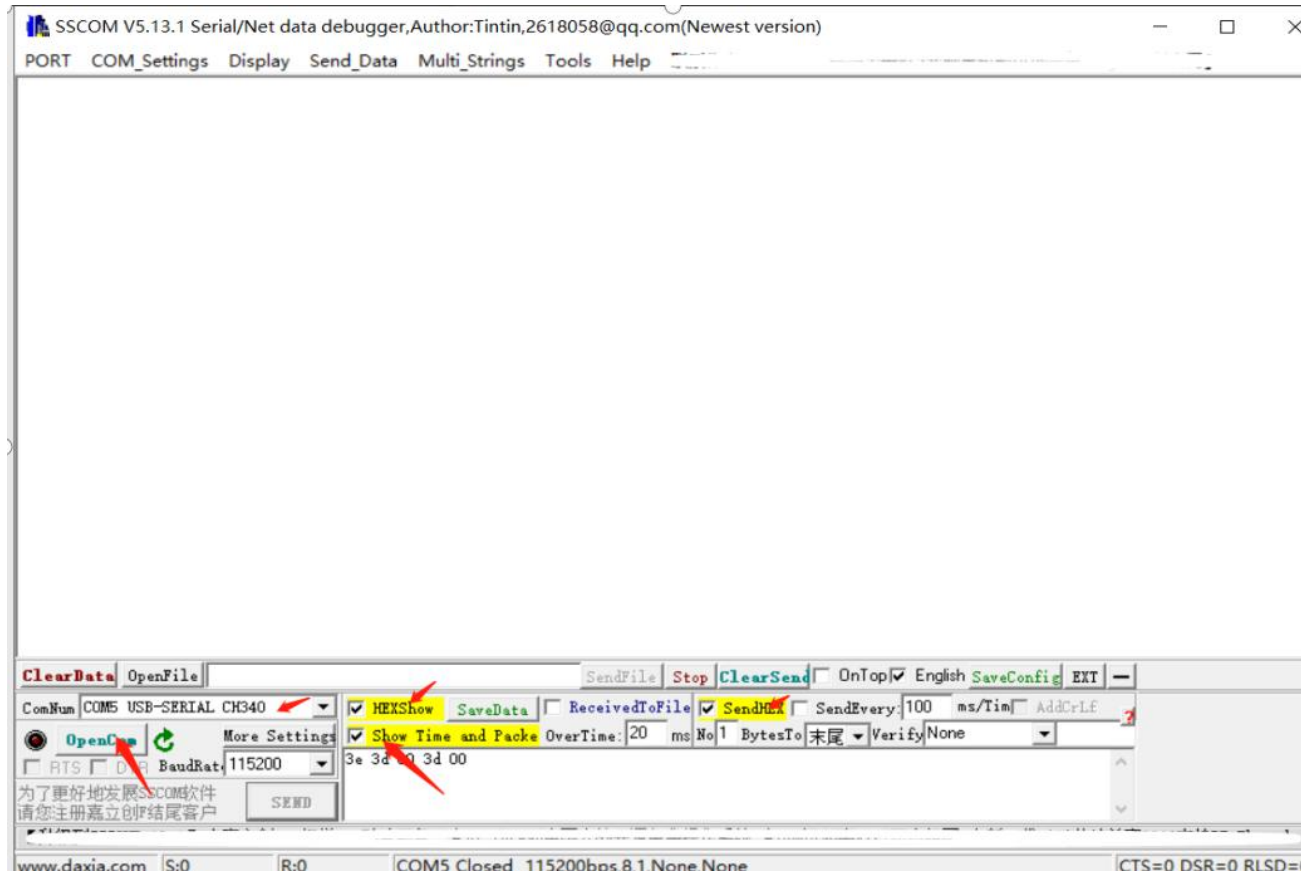
As picture:



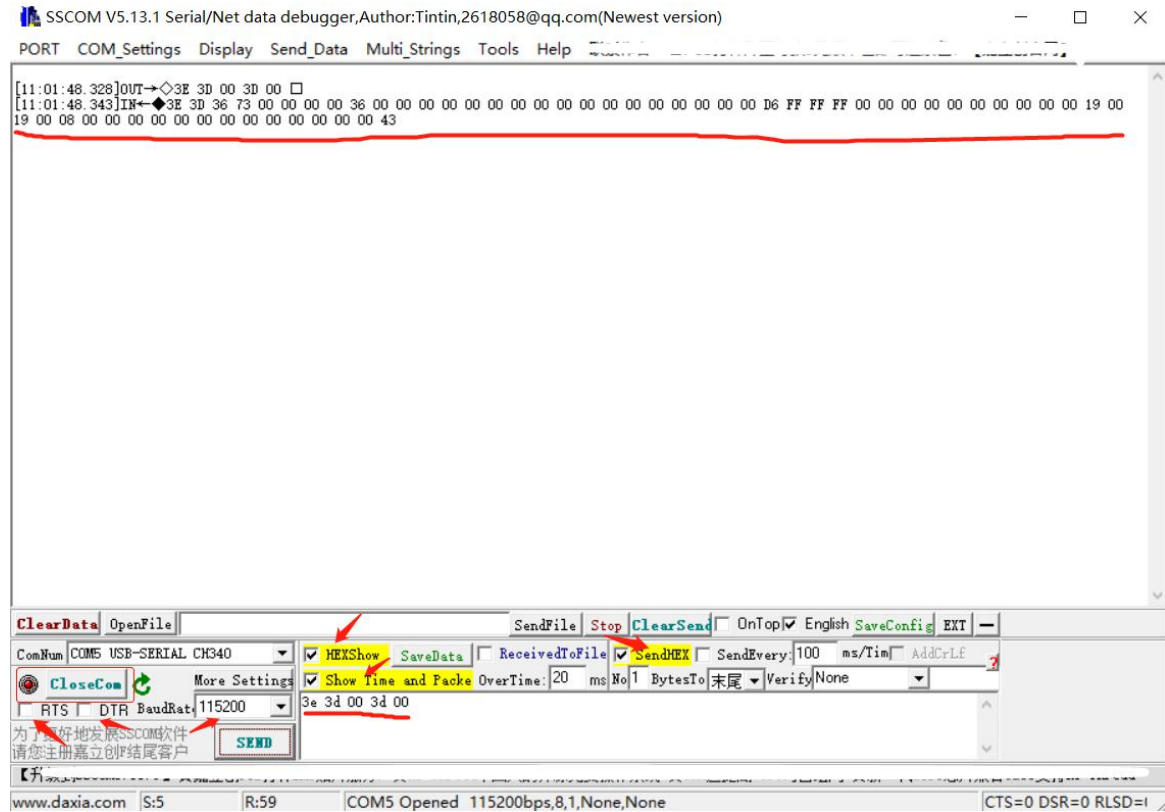
## 2. Software setting and test:

### 1) Software setting:

Baud rate: 115200 or 9600. Data bit: 8. Stop bit: 1. Checksum: None. Click: HEX sent and HEX display.



2) Send: 3e 3d 00 3d 00 under normal circumstances, receive a 59 bytes command feedback starts with "3E 3D 36 73" as below, means the serial communication is well connected.



### 3) Change to SBUS Control and Channels map

Step 1: A)Enter custom map mode: AA 55 10 04 FF

B)Map chan# to relative functions: AA 55 11 YW PT MO ZM FC RP MU FF

Command format: (do not change the red byte,just change the blue byte as your channel setting,set no use function chan# to 0)

AA 55 11 YW PT MO ZM FC RP MU FF (all byte is hex data)

Multi-function :from 1500 to 1100 stop track,from 1500 to 1900 start track. (change by different model)

PIC/REC: from 1500 to 1100 take a picture, from 1500 to 1900 record start/record stop

Focus: 1100 focus out, 1500 focus stop,1900 focus in

Zoom: 1100 zoom out, 1500 zoom stop, 1900 zoom in

Mode: 1100 low speed, 1500 mid speed, from 1500 to 1900 recenter

Pitch: 1100 pitch up, 1500 pitch stop, 1900 pitch down

Yaw: 1100 yaw left, 1500 yaw stop, 1900 yaw right

Note: 1100 is PWM value 1100us, 1500 is PWM value 1500us, 1900 is PWM value 1900us

combine mode: one chan# control each function; separate mode: two chan# control each function.

combine mode(set value <=0x10),separate mode(set value>0x10)

Eg: set channels 9~15 to control above channels, send below command: (Note: in hex, channel 10 set as 0A)

AA 55 11 09 0A 0B 0C 0D 0E 0F FF

For example send: AA 55 11 01 02 03 04 05 06 07 FF, receive feedback AA 55 11 01 02 03 04 05 06 07 FF, means send successfully, gimbal was set channels 1~7 as SBUS channels.

SSCOM V5.13.1 Serial/Net data debugger, Author: Tintin, 2618058@qq.com (Newest version)

PORT COM\_Settings Display Send\_Data Multi\_Strings Tools Help

```
.16:23:14.683]OUT->◇AA 55 11 01 02 03 04 05 06 07 FF □  
.16:23:14.686]IN<-◆AA 55 11 01 02 03 04 05 06 07 FF
```

ClearData OpenFile SendFile Stop ClearSend OnTop English SaveConfig EXT

ComNum COM5 USB-SERIAL CH340  HEXShow SaveData  ReceivedToFile  SendHEX  SendEvery: 100 ms/Tim  AddCrLf

Show Time and Packe OverTime: 20 ms No 1 BytesTo 末尾 Verify None

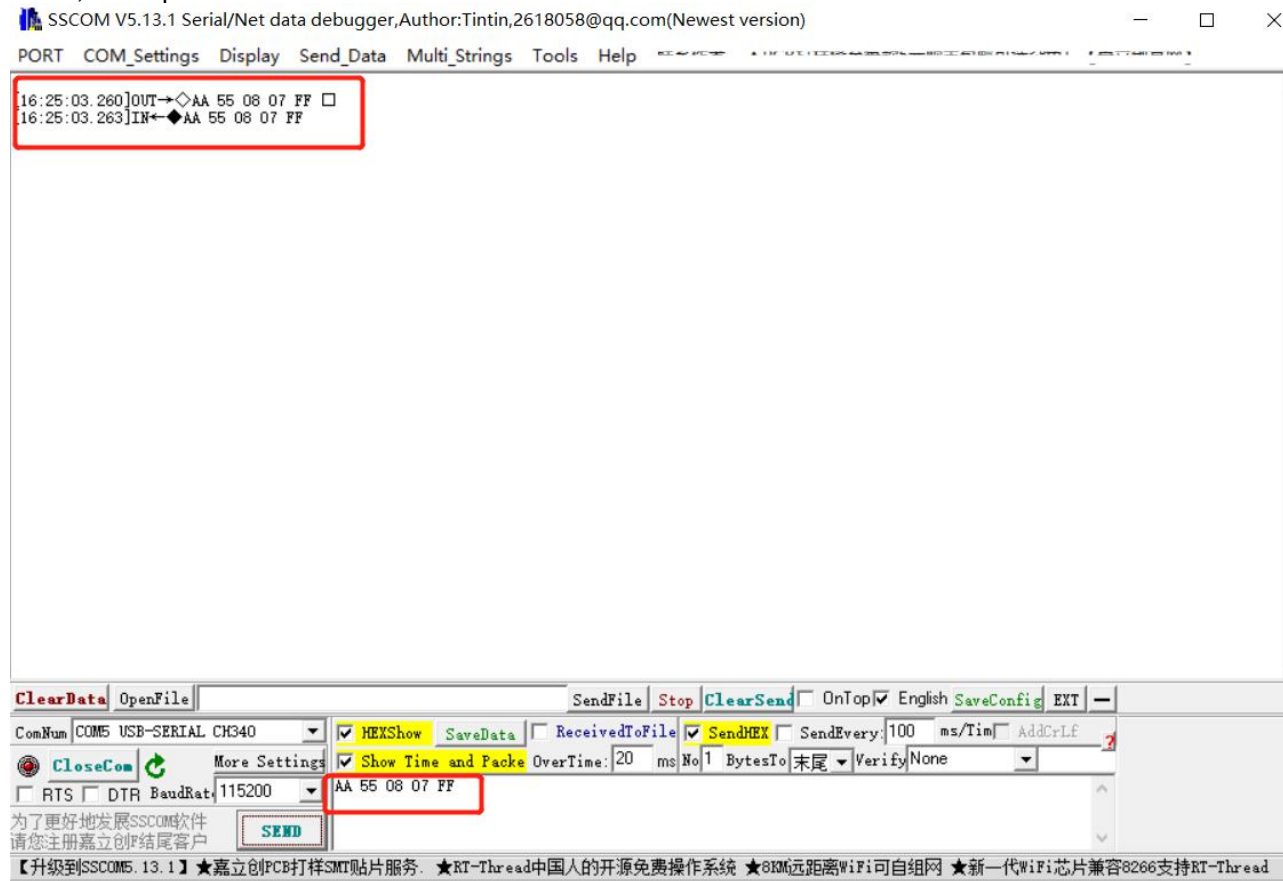
RTS  DTR BaudRat: 115200 AA 55 11 01 02 03 04 05 06 07 FF

为了更好地发展SSCOM软件  
请您注册嘉立创结尾客户

SEND

【升级到SSCOM5.13.1】★嘉立创PCB打样SMT贴片服务. ★RT-Thread中国人的开源免费操作系统 ★8KM远距离WiFi可自组网 ★新一代WiFi芯片兼容8266支持RT-Thread

Step 2: Send: AA 55 08 07 FF, serial port feedback with AA 55 08 07 FF



4) Restart the gimbal, then send: 3e 3d 00 3d 00 for couple times, no feedback, means SBus set is finished.

### 3. SBus wiring diagram

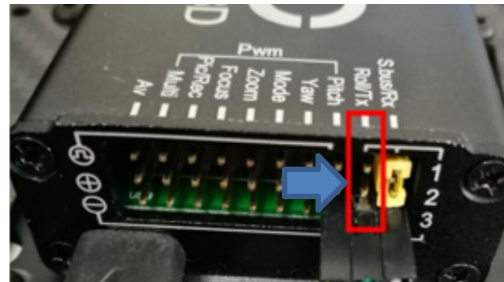
Use a 3-PIN DUPONT cable to connect the gimbal control box with remote control receiver SBus port (sample with Futaba), connect as below

*Notice: The GND of Sbus signal should connect to the GND of PWM control box*



#### 4. Cancel the SBus control, restore the Serial port control

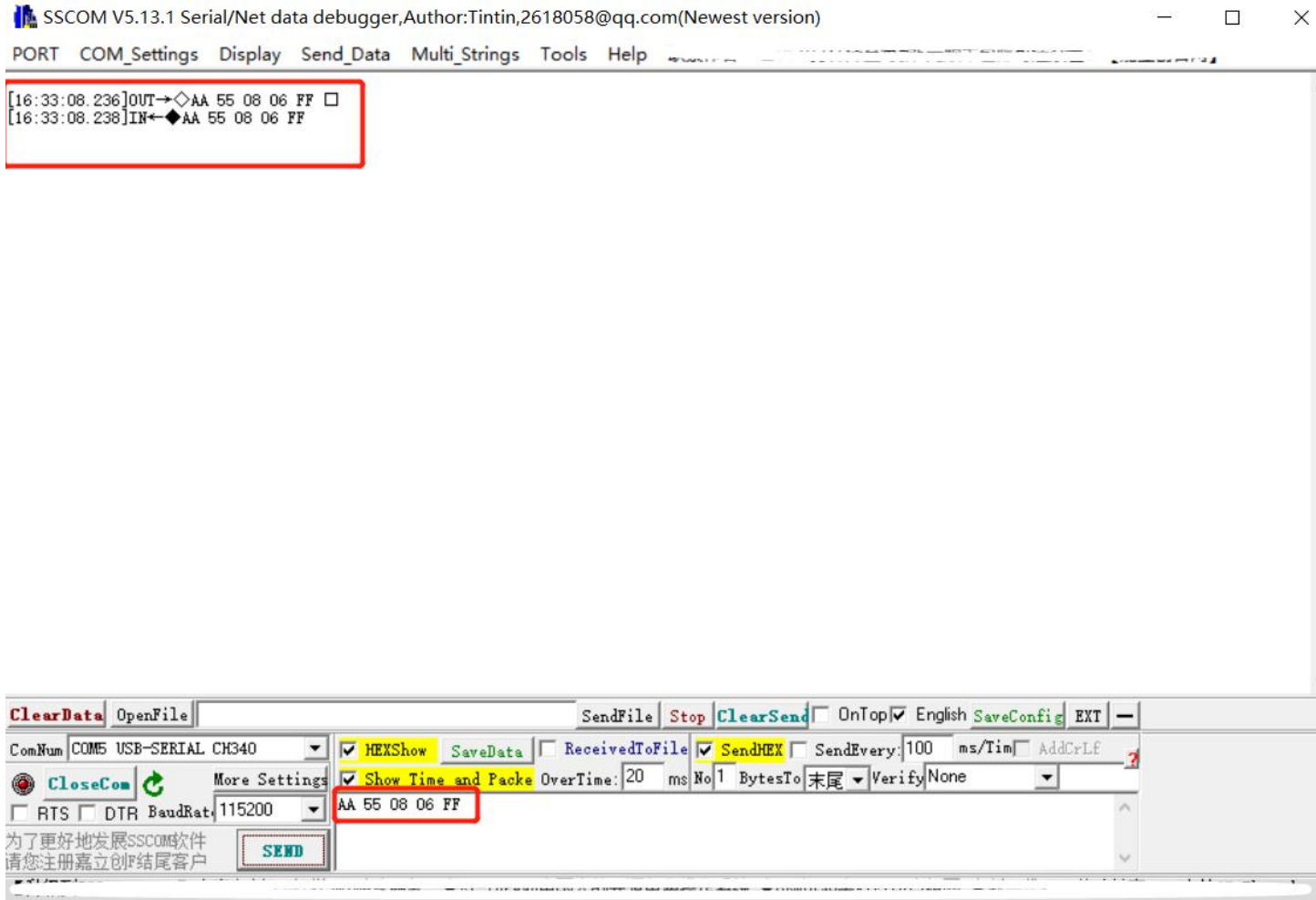
- 1) When gimbal is controlled by SBus, If send gimbal query command: 3e 3d 00 3d 00, no feedback command display.
- 2) Remove jump cap as shown (The yellow part in the red box is one jumper cap)



- 3) Power on the gimbal, wait about 10 seconds, plug back the jumper cap.



4) Input 115200 as baud rate on the serial port software (software settings are same as above). Then click send: AA 55 08 06 ff. As shown:



5) Power off the gimbal, restart the gimbal. Then send command to query feedback. If there is feedback, it means gimbal serial port is working well. Send: 3e 3d 00 3d 00, get the feedback as below, means the serial port is connected.

