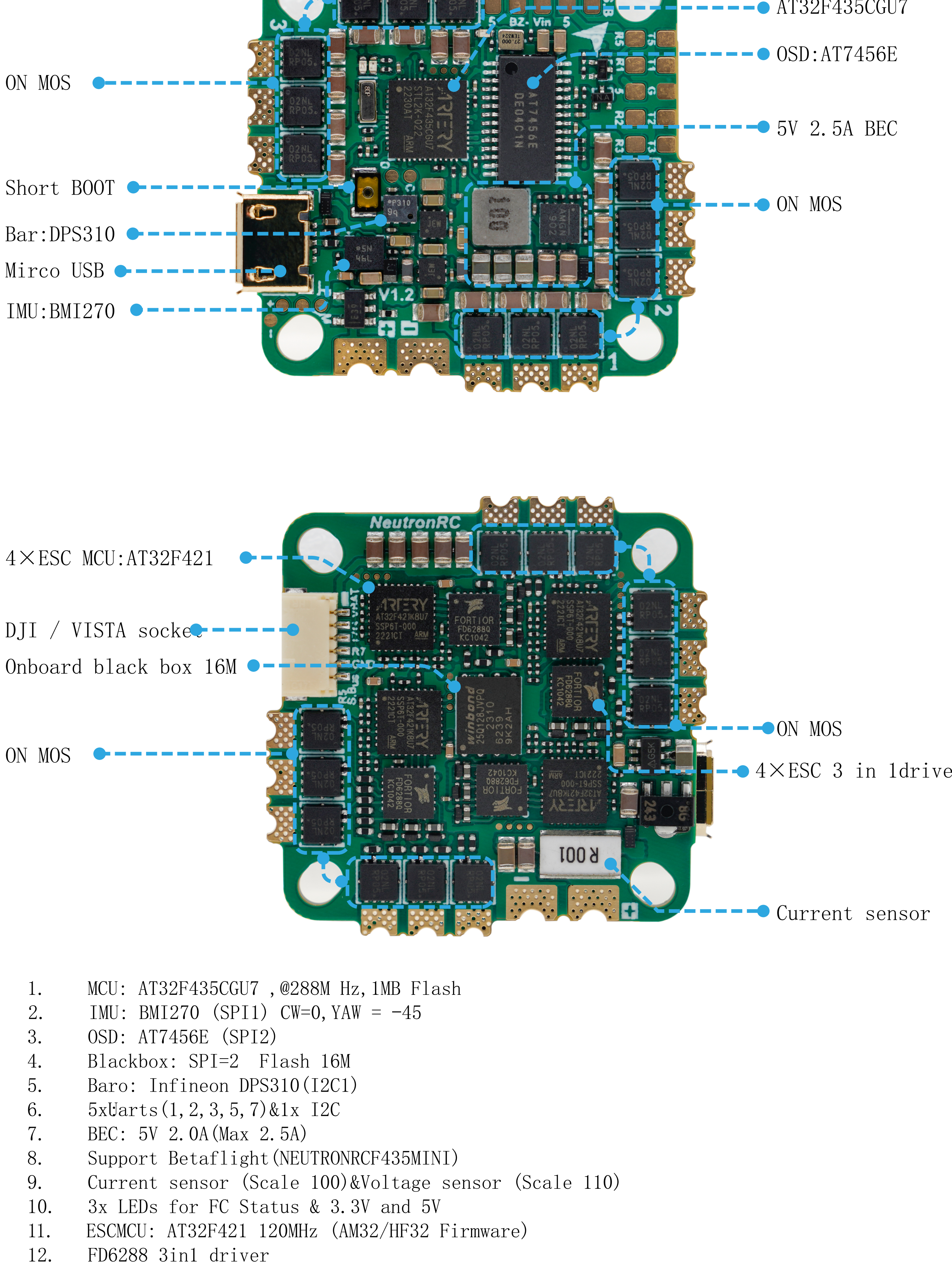




NeutronRC AT32F435 Mini AIO

V1.2 Upgrade

Features



1. MCU: AT32F435CGU7 , @288M Hz, 1MB Flash
2. IMU: BMI270 (SPI1) CW=0, YAW = -45
3. OSD: AT7456E (SPI2)
4. Blackbox: SPI=2 Flash 16M
5. Baro: Infineon DPS310(I2C1)
6. 5xUARTs(1, 2, 3, 5, 7)&1x I2C
7. BEC: 5V 2.0A(Max 2.5A)
8. Support Betaflight (NEUTRONRCF435MINI)
9. Current sensor (Scale 100)&Voltage sensor (Scale 110)
10. 3x LEDs for FC Status & 3.3V and 5V
11. ESCMCU: AT32F421 120MHz (AM32/HF32 Firmware)
12. FD6288 3in1 driver
13. SH1.0-6pin, DJI/Vista straight plug
14. ONsemi Industrial MOS, low internal resistance and high current
15. Current 45Ax4 ,Max 60A(5S)
16. ESC Firmware: AM32 (AM32_AT32DEV_F421)
17. 8-layer 20Z, 2-order blind via PCB.

Target:

- ATbetaflight Firmware: [NEUTRONRCF435MINI](#)
- INAV Firmware: [NEUTRONRCF435MINI](#)
- QUICKSILVER Firmware: [NEUTRONRCF435MINI](#)



Default UART Configuration

UART 1: NC
UART 2: NC
UART 3: NC
UART 5: S. BUS (DJI /VISTA/03)
UART 7: DJI/VISTA

Mechanical and Electrical Specs

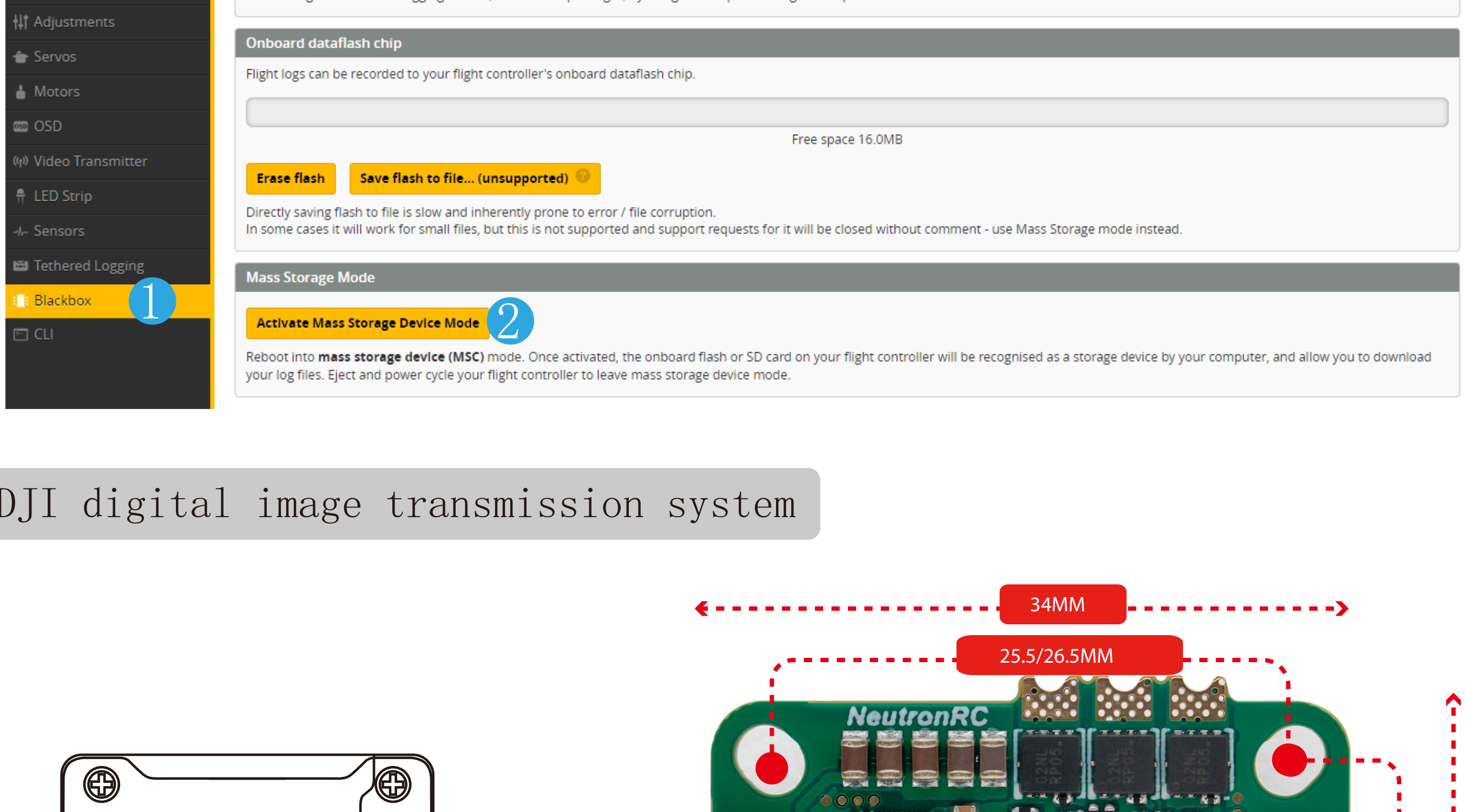
- Input Voltage: 3-5S (35A/55A), 3-6S (45A)
- Mounting: 25.5x25.5mm w/M3 Grommets
- Size: 34x34x7mm
- Weight: 8g

Default port

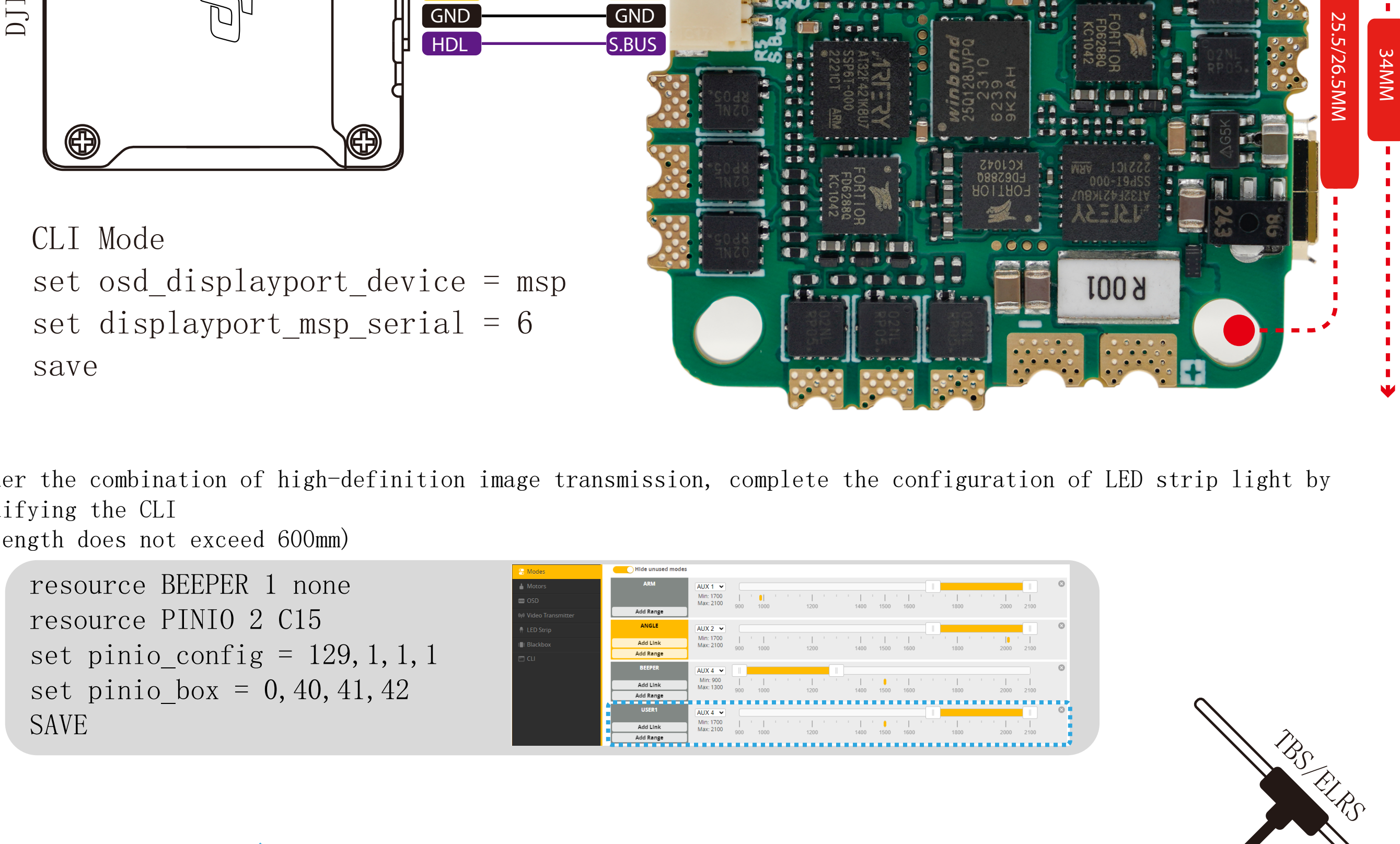
Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor input	Peripherals
USB VCP	(115200)		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART1	(115200)		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART2	(115200)		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART3	(115200)		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART5	(115200)		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART7	(115200)		Disabled AUTO	Disabled AUTO	Disabled AUTO

Read black box data

Select the black box option activate mass storage device mode



DJI digital image transmission system

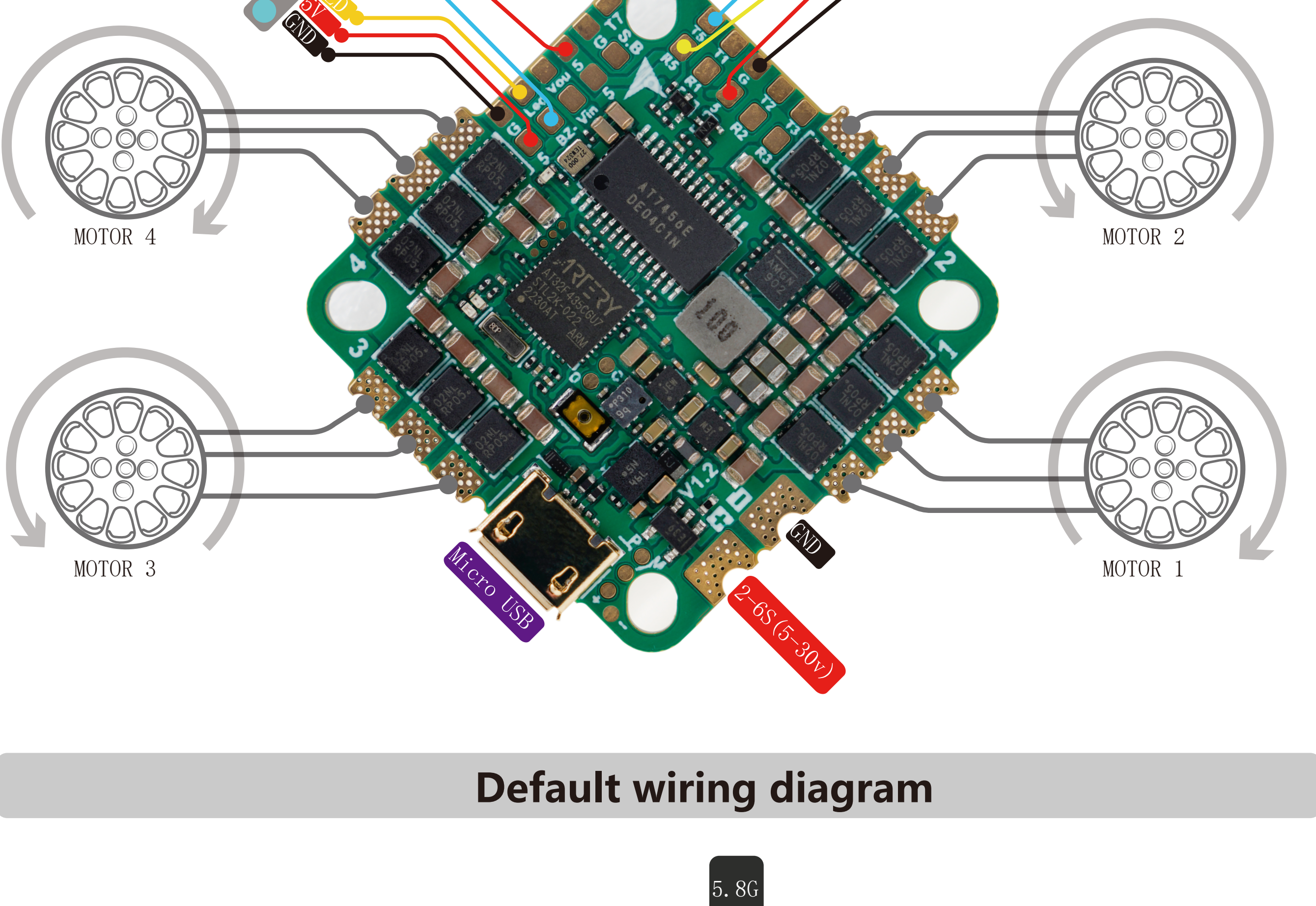
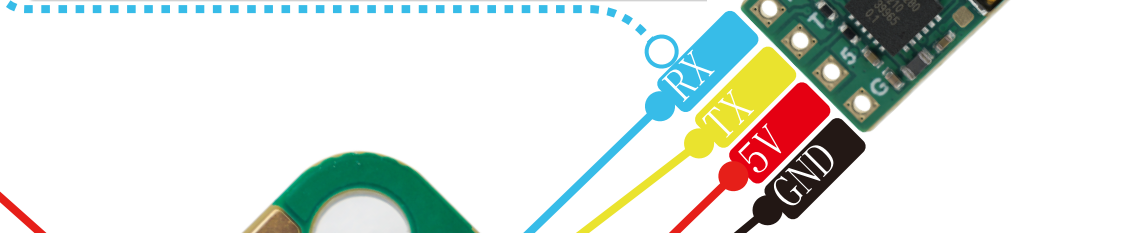


CLI Mode
set osd_displayport_device = msp
set displayport_msp_serial = 6
save

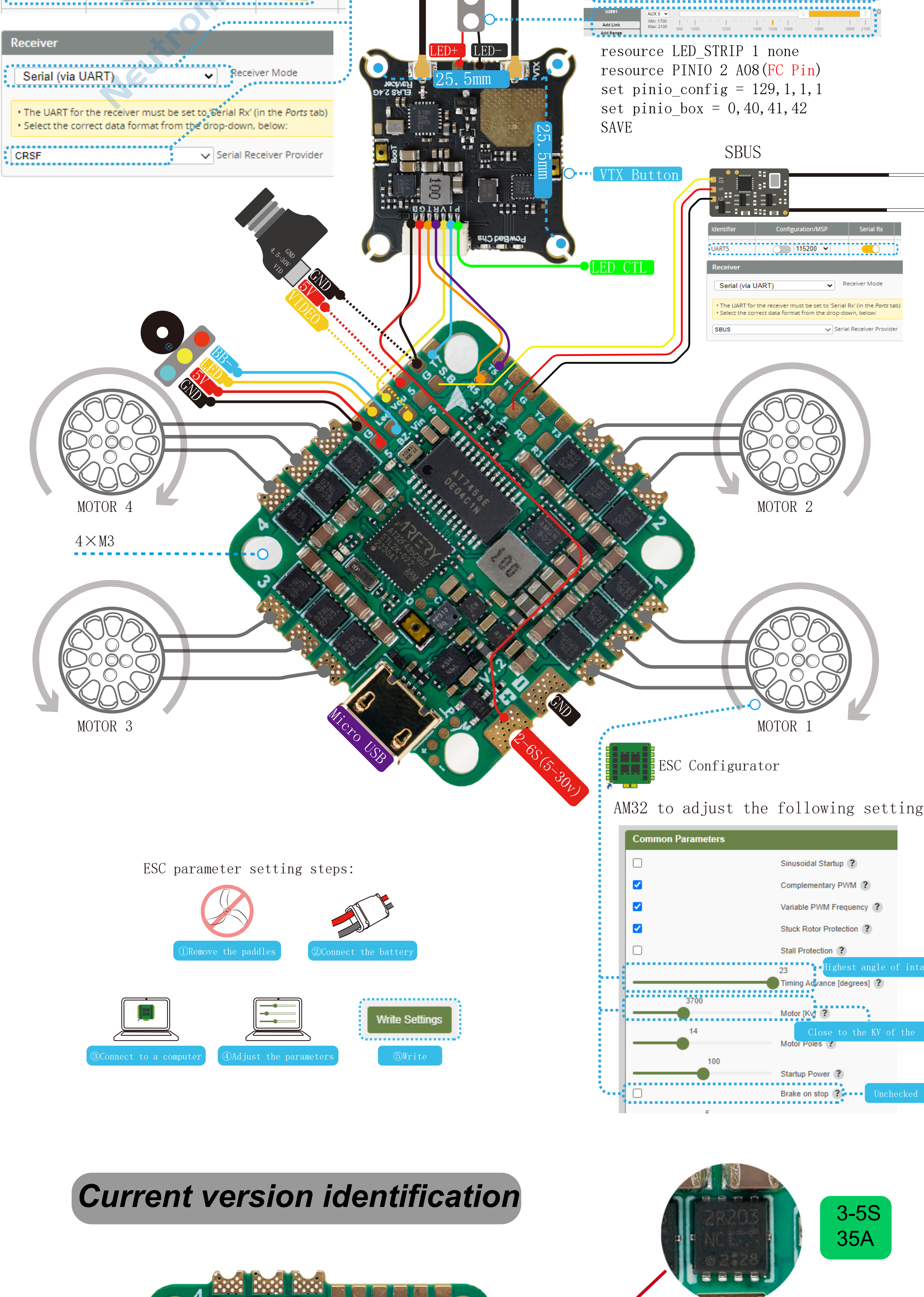
Under the combination of high-definition image transmission, complete the configuration of LED strip light by modifying the CLI

(Length does not exceed 600mm)

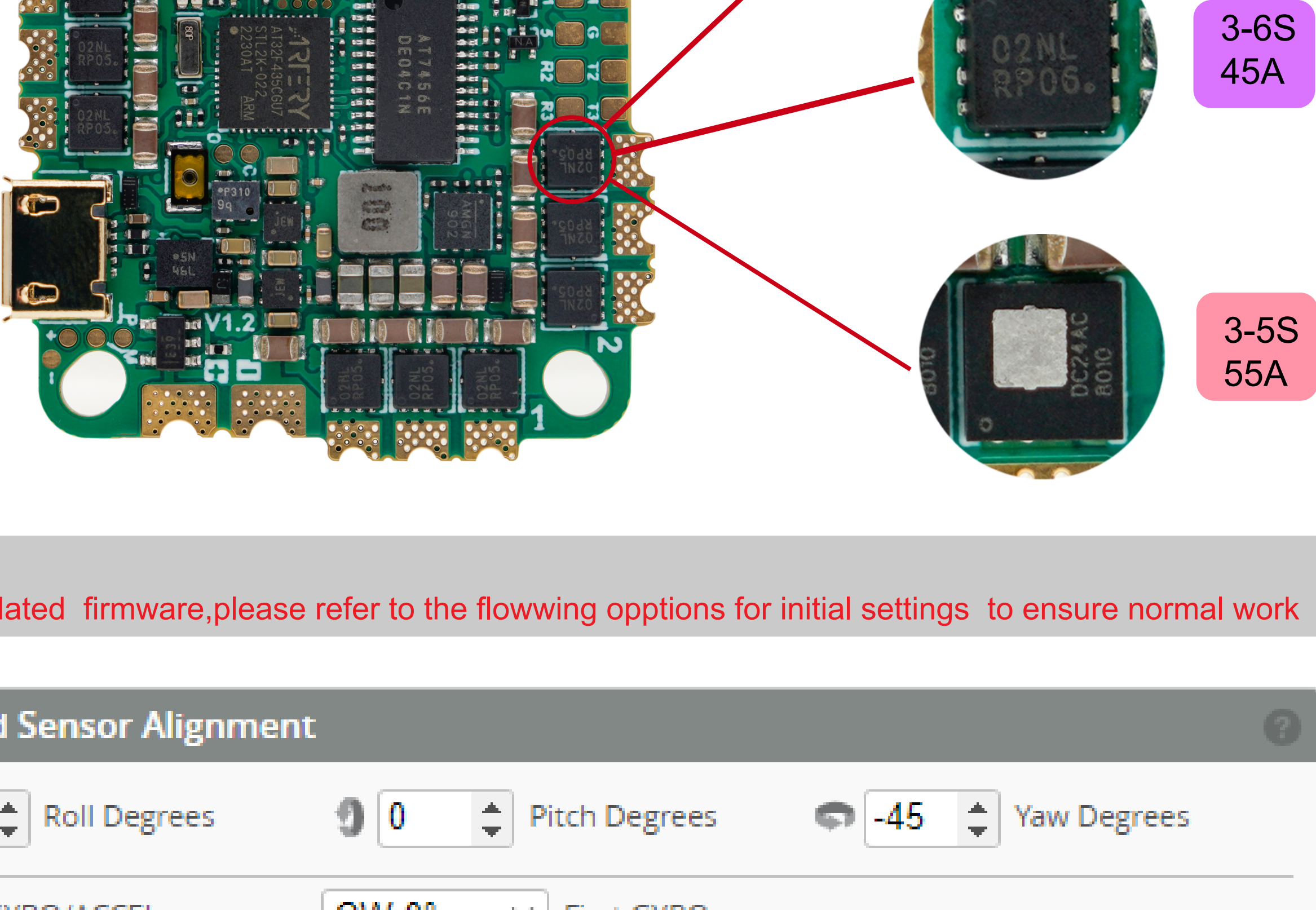
```
resource BEEPER 1 none  
resource PINIO 2 C15  
set pinio_config = 129,1,1,1  
set pinio_box = 0,40,41,42  
SAVE
```



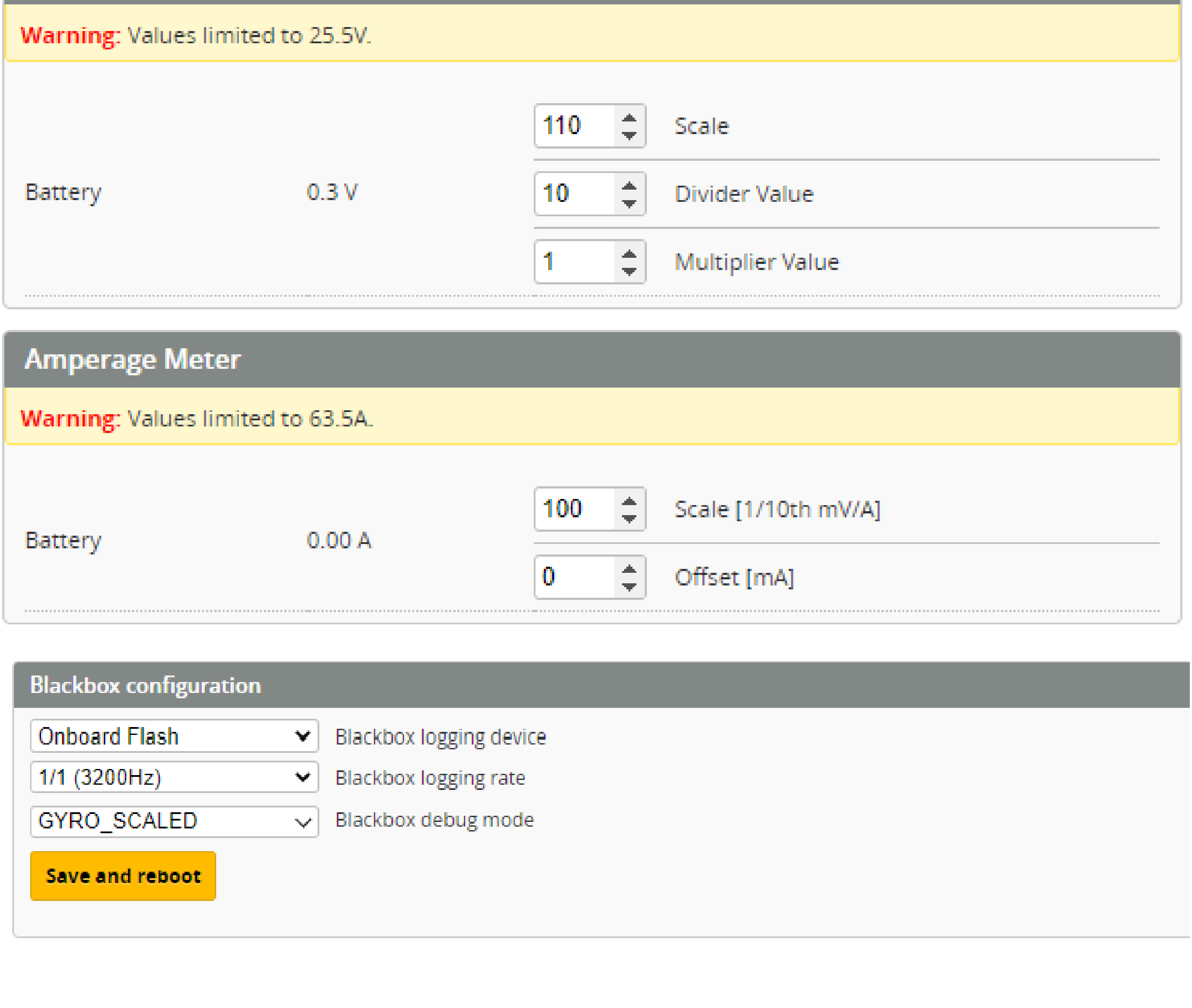
Default wiring diagram



Current version identification



NOTE: If you have updated firmware, please refer to the following options for initial settings to ensure normal work



NeutronRC

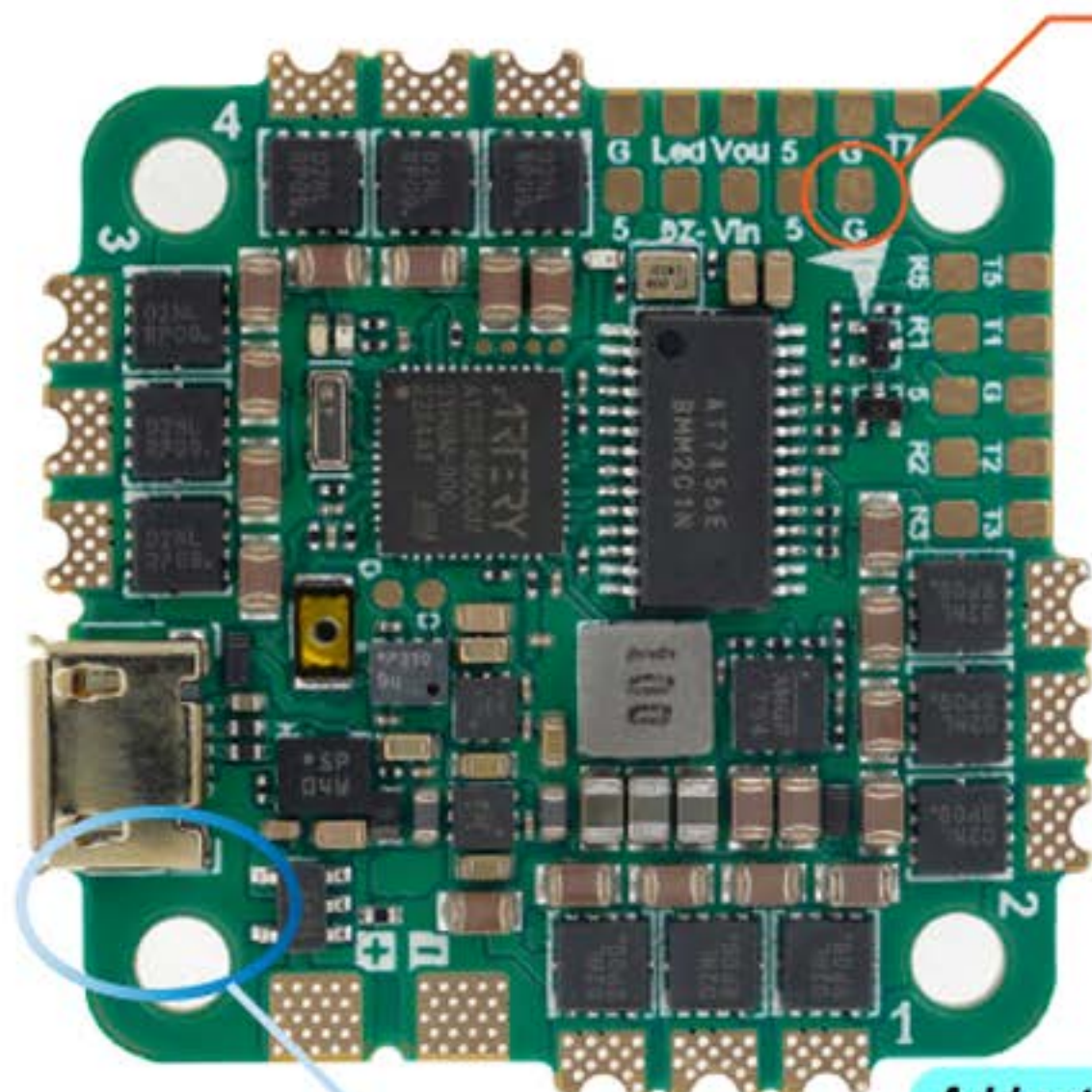
ATbetaflight

AM32

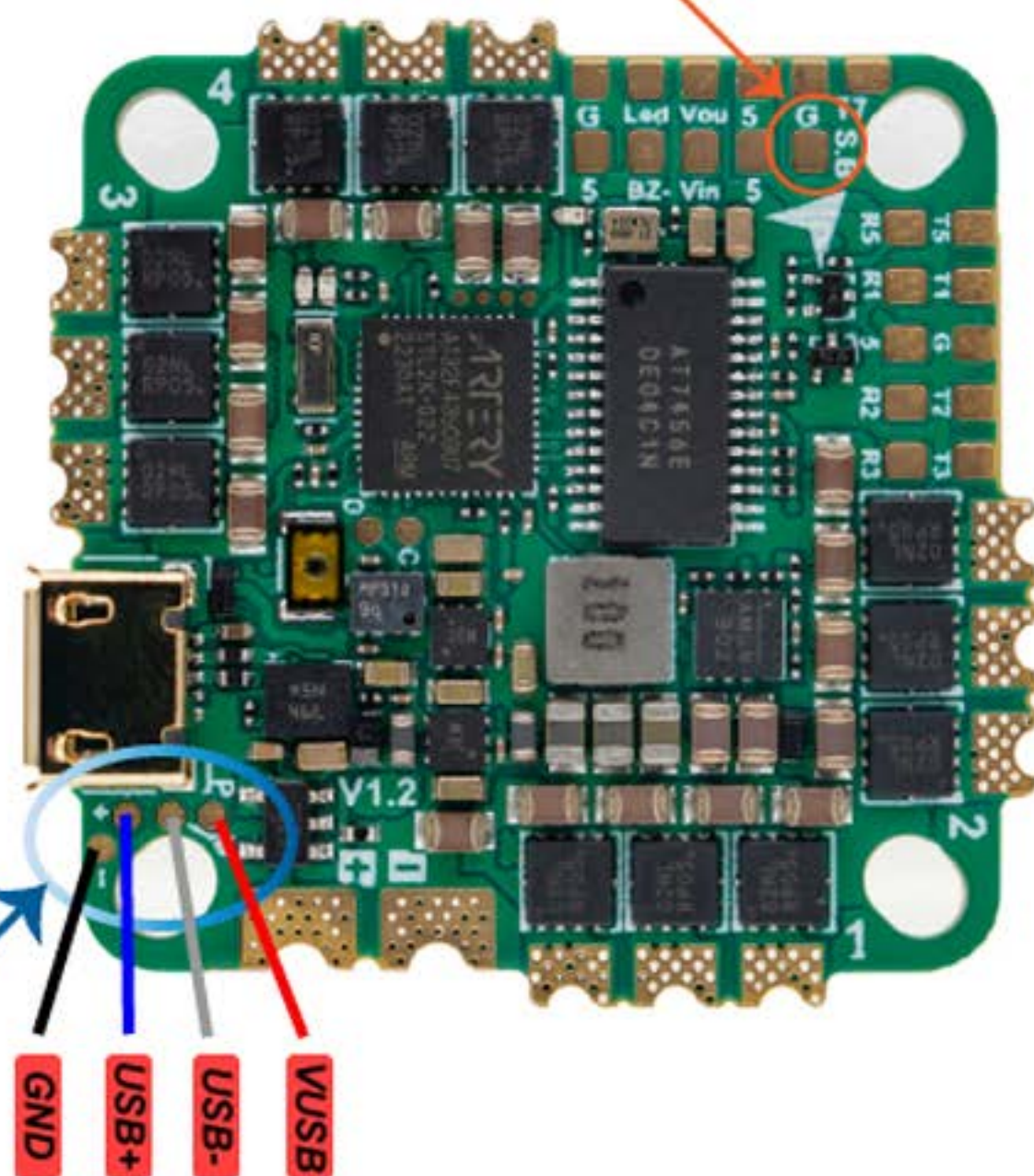
AT32F435 AIO V1.0

AT32F435 AIO V1.2

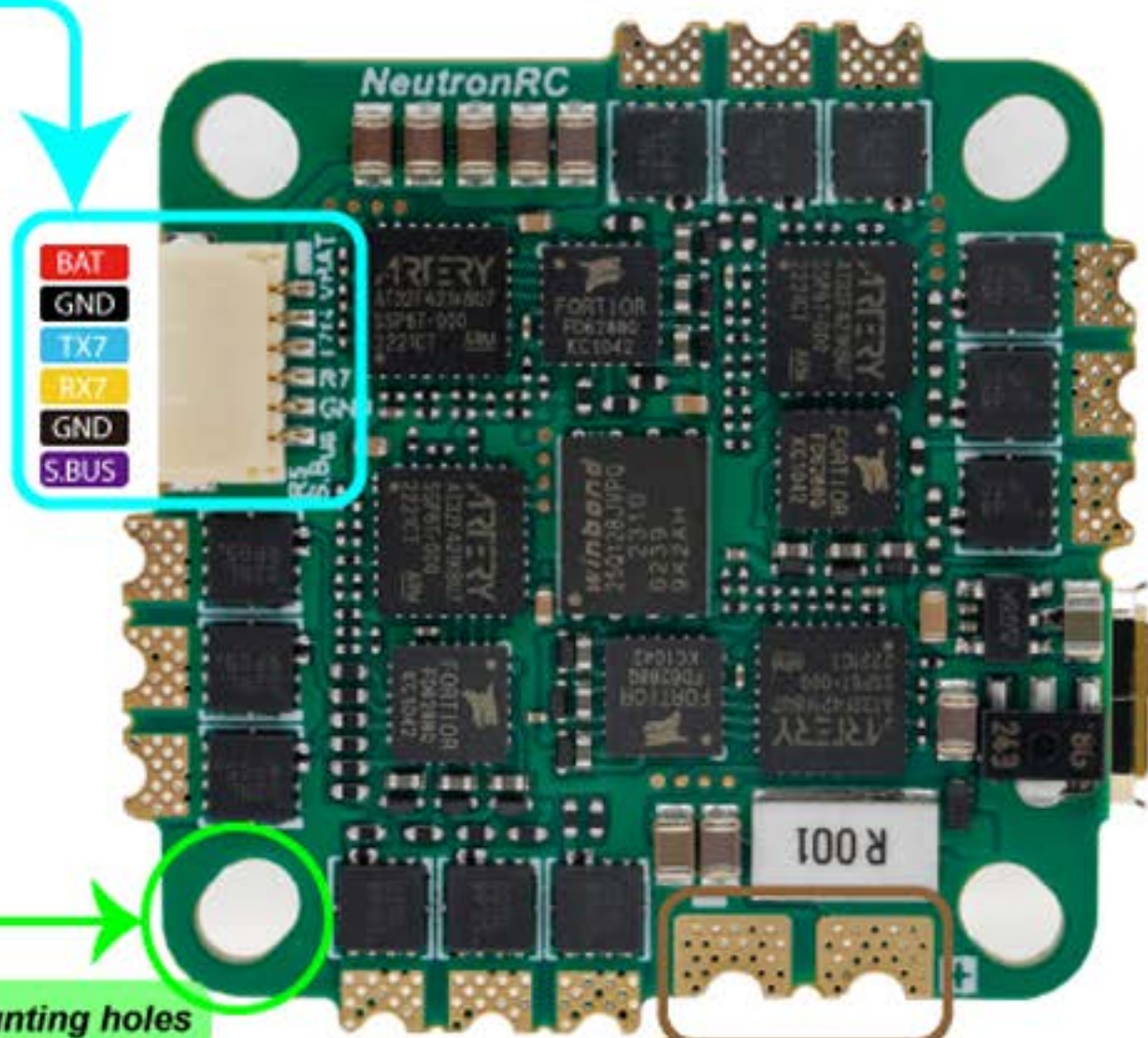
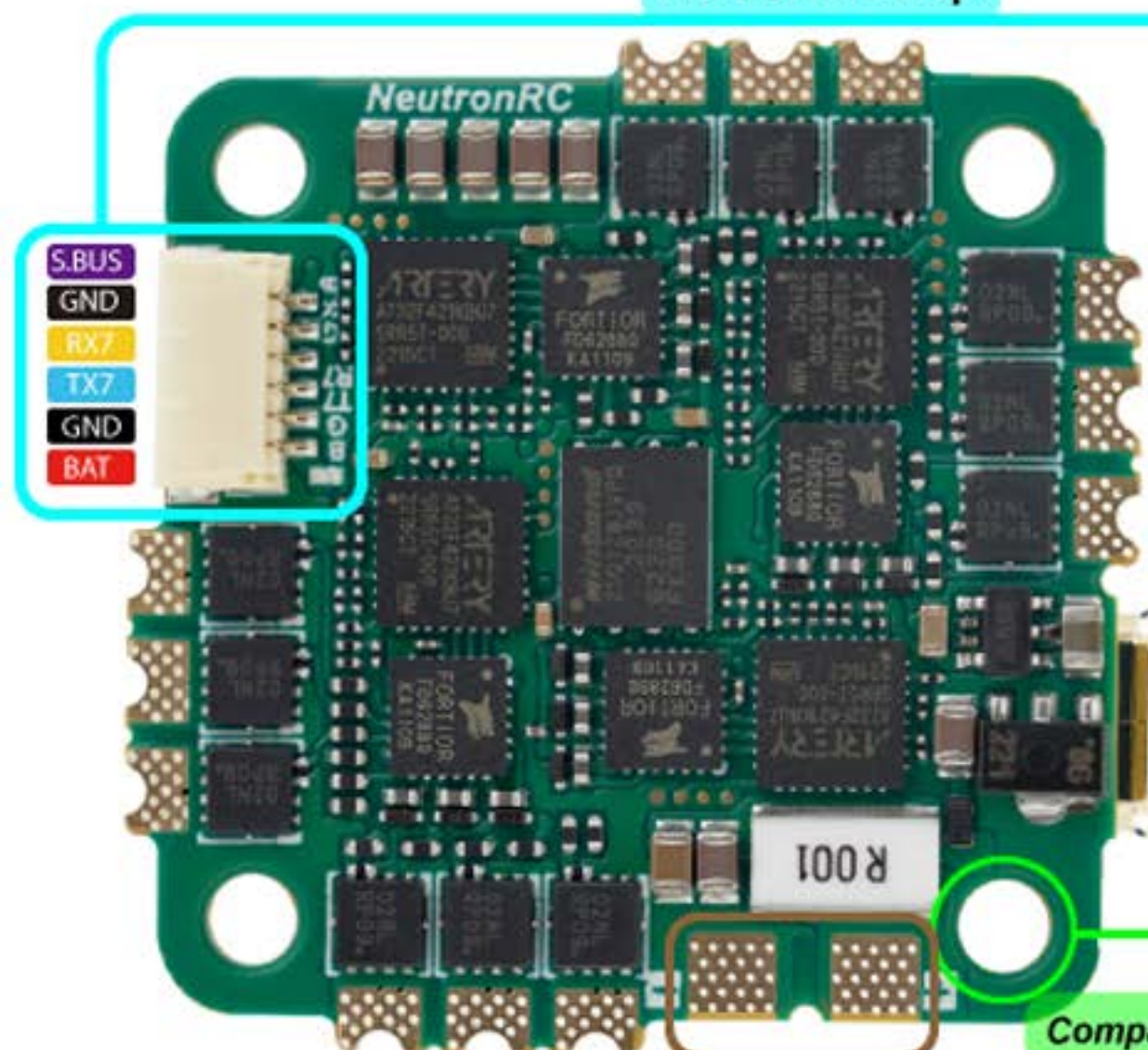
Change and add S. BUS pad



Add external USB pad



Fix DJI line map



Compatible with 26.5 mounting holes

Enlarge the power pad and make a half hole



Current Motor	3-5S 35A Silk screen:2R203	3-6S 45A silk screen:002NL	3-5S 55A sikk screen:white box
11XX	Y	Y	Y
12XX	Y	Y	Y
13XX	Y	Y	Y
14XX	Y	Y	Y
15XX	Y	Y	Y
16XX	Y	Y	Y
18XX	Y	Y	Y
20XX	Y	Y	Y
21XX	Y 3.5 inch whoop / 4 inch	Y	Y
22XX	caution	Y	Y
2207	N	Y	Y
23XX	N	Y	Y
25XX	N	Y	Y / 6 inch
28XX	N	Y / 7 inch	caution
	Y : Passed the test		
	Caution : not test for now ,not suggest ..		
	N : Absolutely prohibited		

