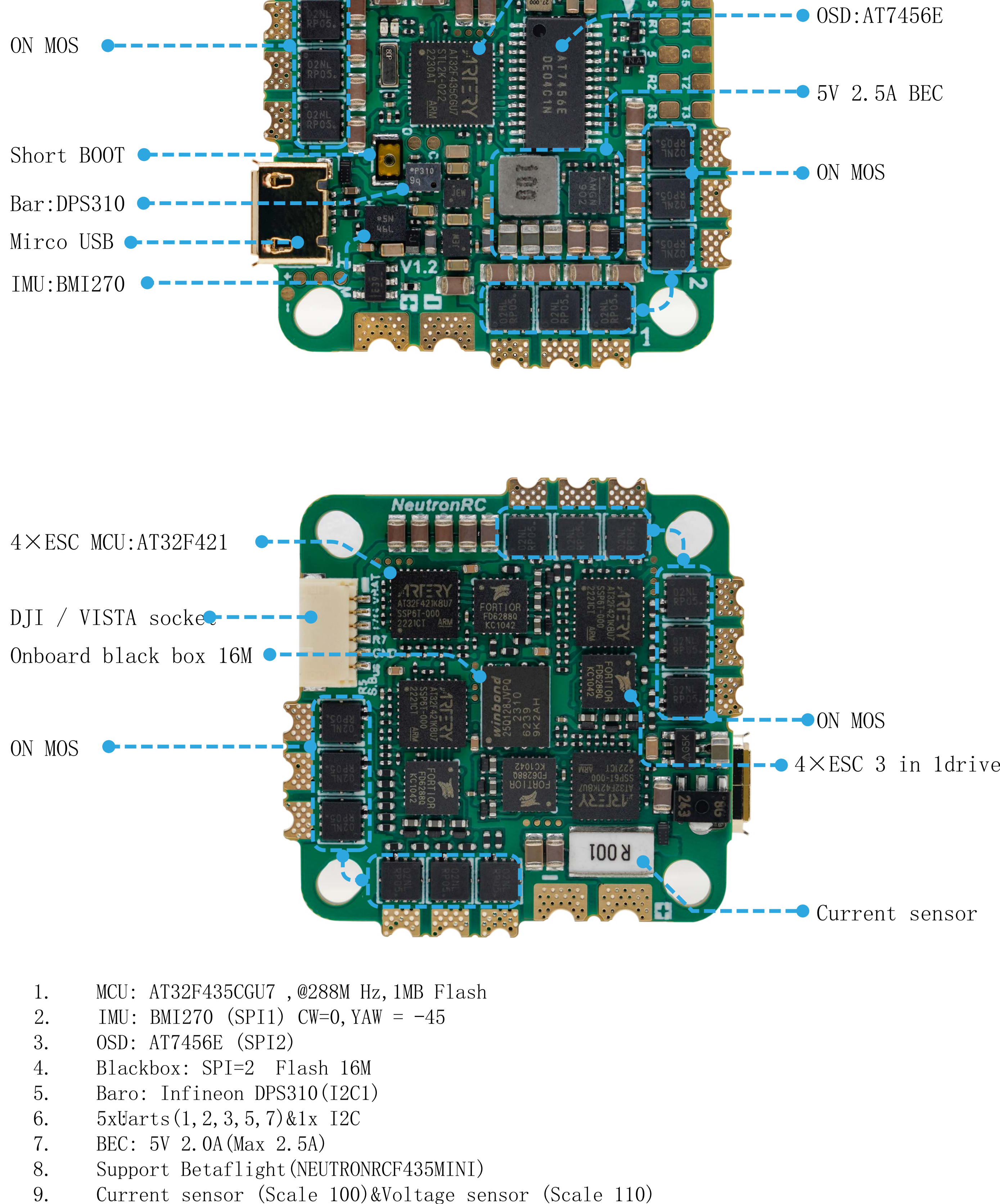


Features



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. 5x Barts(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

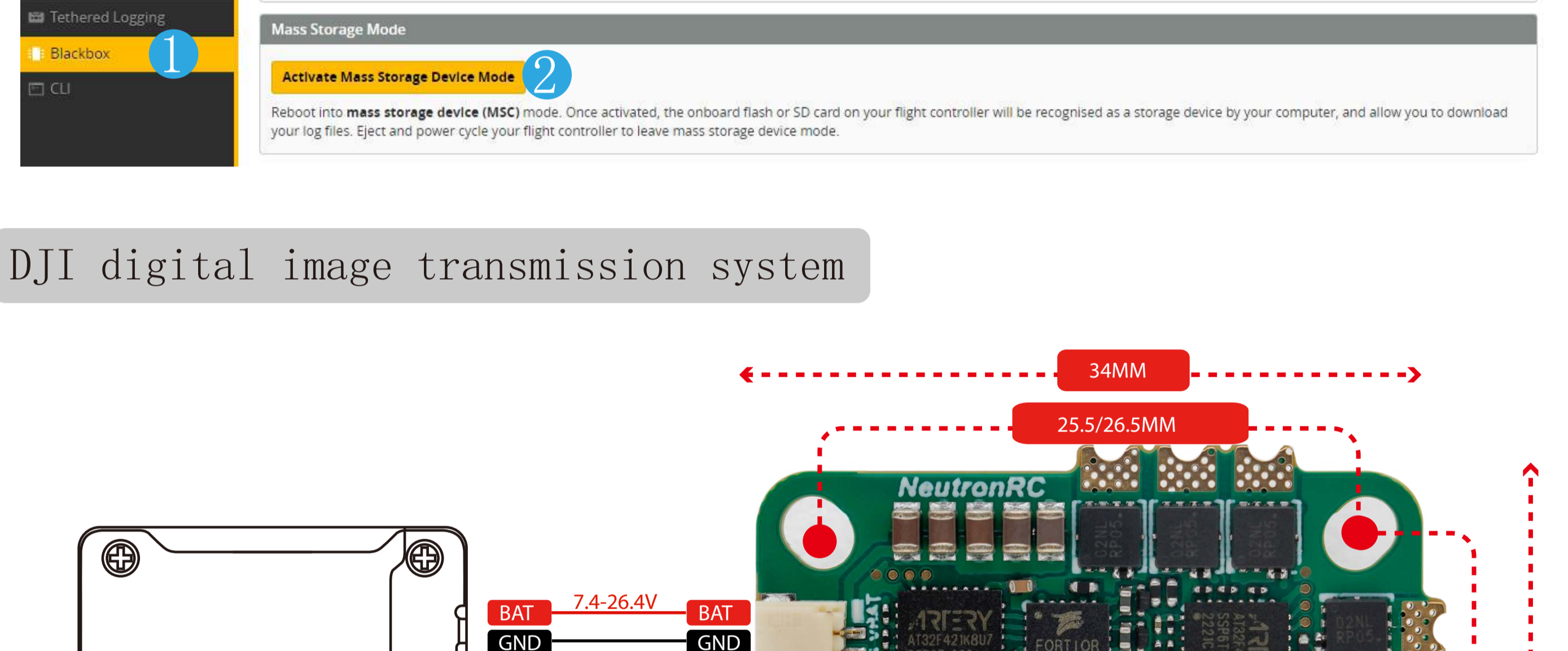
- Input Voltage: 3-5S (35A/55A), 3-6S (45A)
- Mounting: 25.5x25.5mm w/M3 Grommets
- Size: 34x34x7mm
- Weight: 8g

Default port

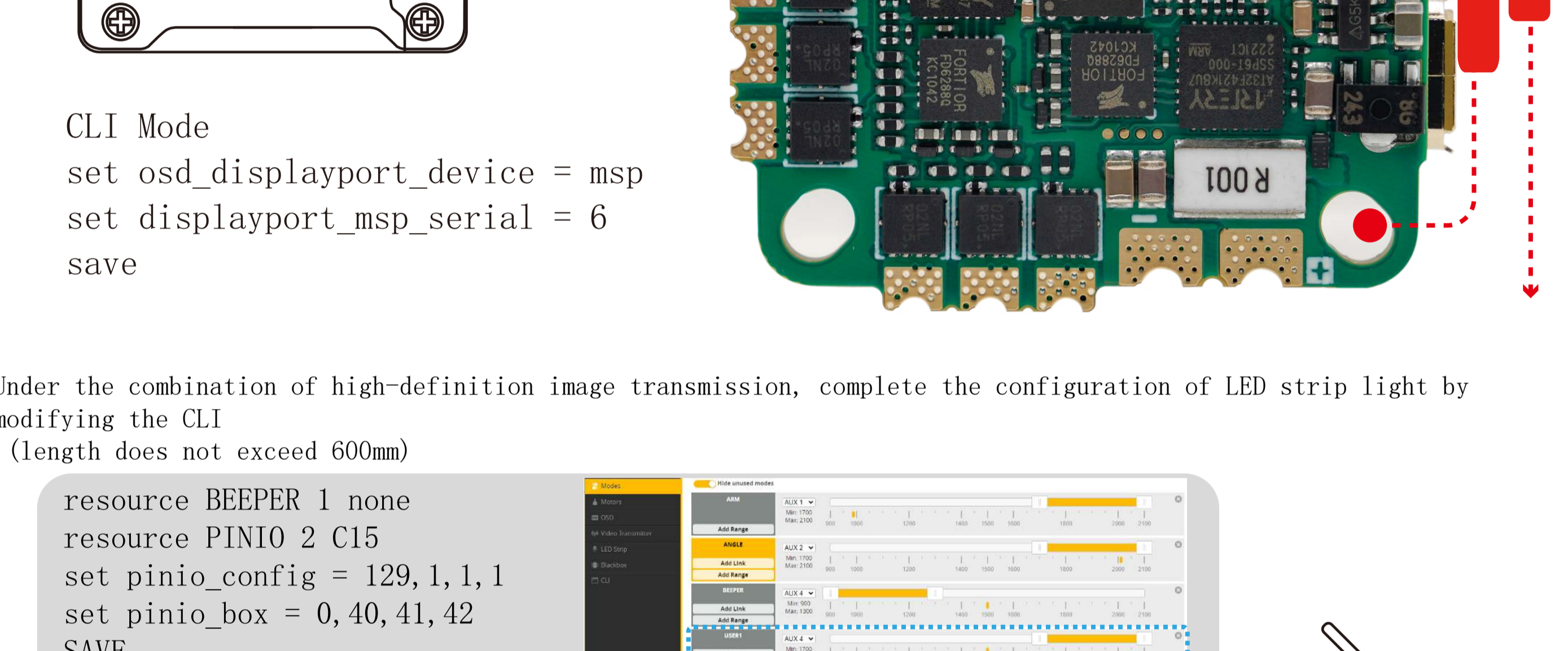
Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor input	Peripherals
USB VCP	115200		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART1	115200		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART2	115200		Disabled AUTO	Disabled AUTO	Disabled AUTO
UART3	115200		Disabled AUTO	Disabled AUTO	Disabled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



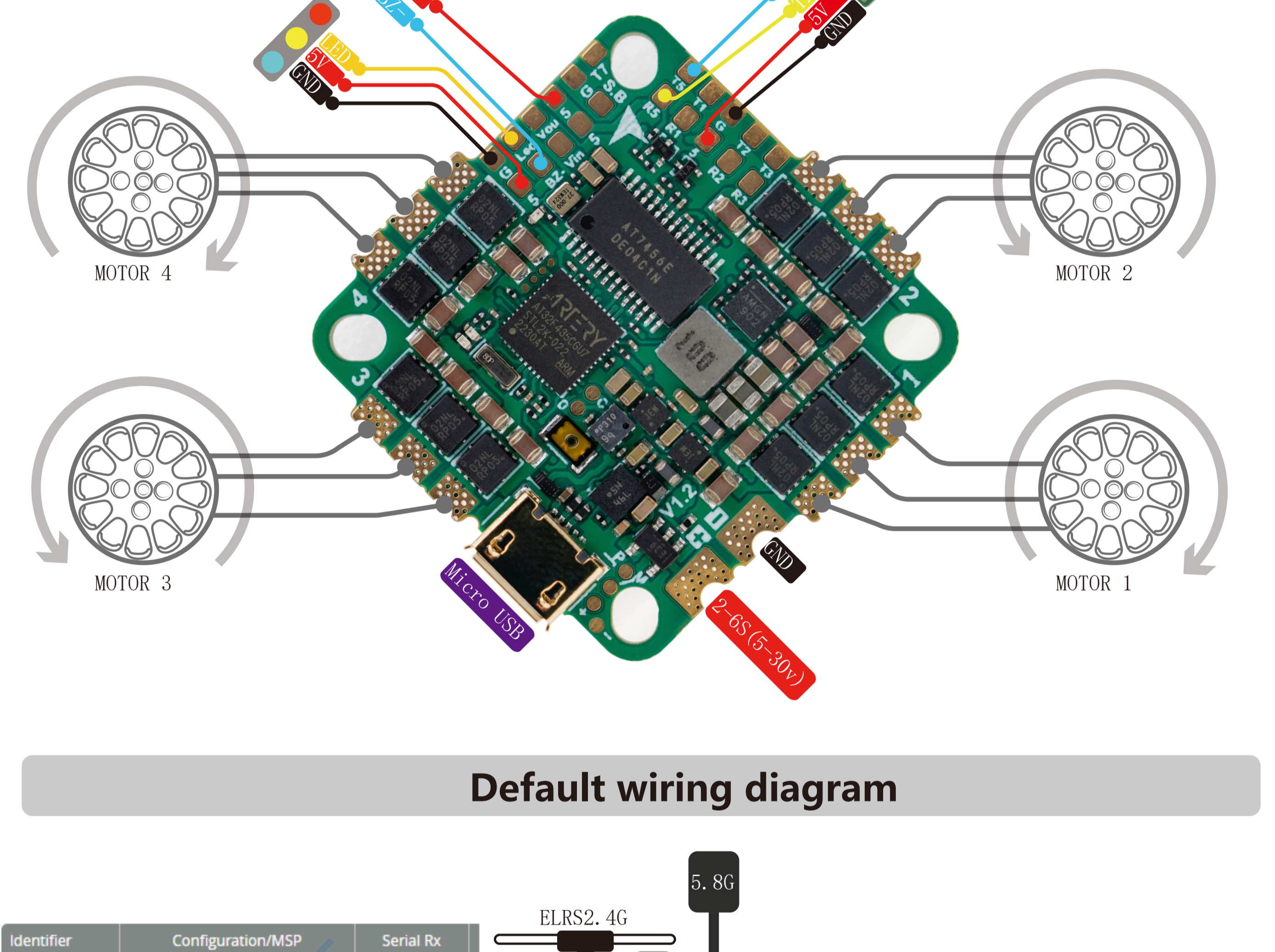
DJI digital image transmission system



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

```

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



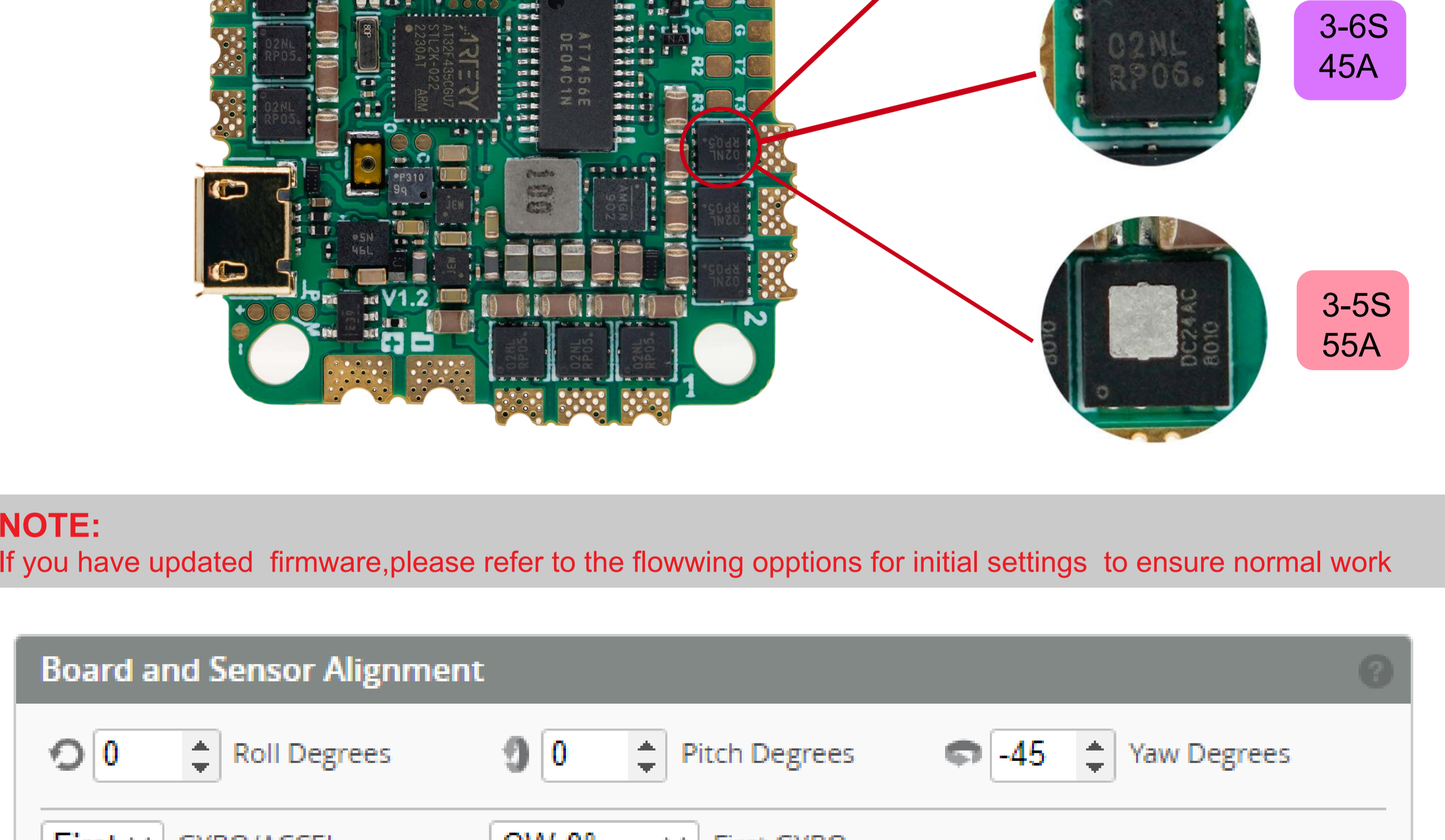
Default wiring diagram

Receiver Mode: Serial (via UART)
 ESC Configurator: AM32 to adjust the following settings:

ESC parameter setting steps:
 1. Follow the padlock
 2. Connect the battery
 3. Connect to a computer
 4. Adjust the parameters
 5. Write

Common Parameters:
 Sinestart Startup: [x]
 Complementary PWM: [x]
 Variable PWM Frequency: [x]
 Black Rotor Protection: [x]
 Stall Protection: [x]
 Highest angle of intake: [x]
 Timing Advance (degrees): [x]
 Motor Jitter: [x]
 Close to the RV of the Motor Power: [x]
 Motor Power: [x]
 Brake on stop: [x]

Current version identification



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

Board and Sensor Alignment
 Roll Degrees: 0, Pitch Degrees: 0, Yaw Degrees: -45
 First: GYRO/ACCEL, CW 0°, First GYRO
 Default, MAG Alignment

Voltage Meter
 Warning: Values limited to 25.5V.
 Battery: 0.3 V
 Scale: 110, Divider Value: 10, Multiplier Value: 1

Amperage Meter
 Warning: Values limited to 63.5A.
 Battery: 0.00 A
 Scale [1/10th mV/A]: 100, Offset [mA]: 0

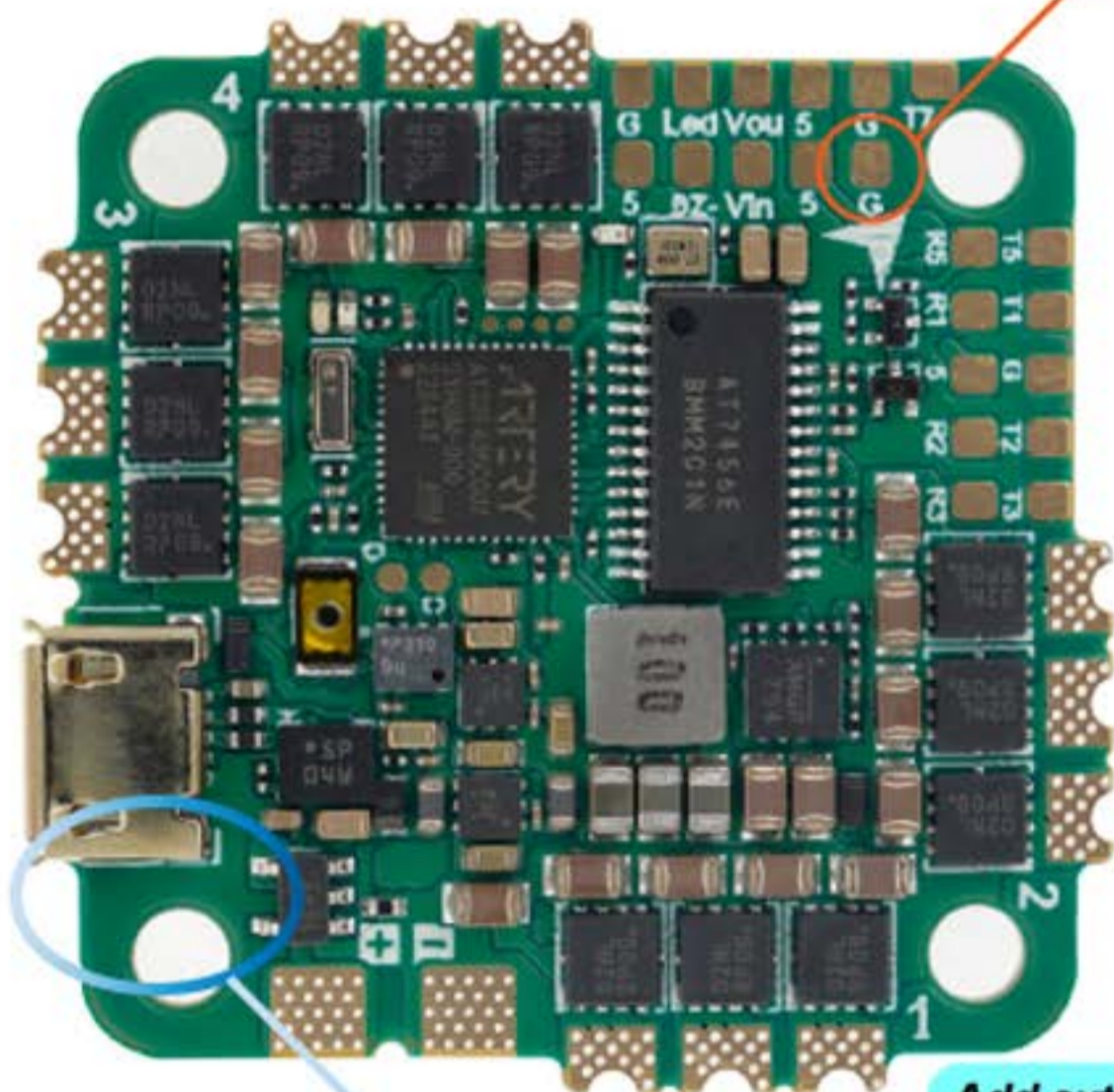
Blackbox configuration
 Onboard Flash: Blackbox logging device
 1/1 (3200Hz): Blackbox logging rate
 GYRO_SCALED: Blackbox debug mode
 Save and reboot



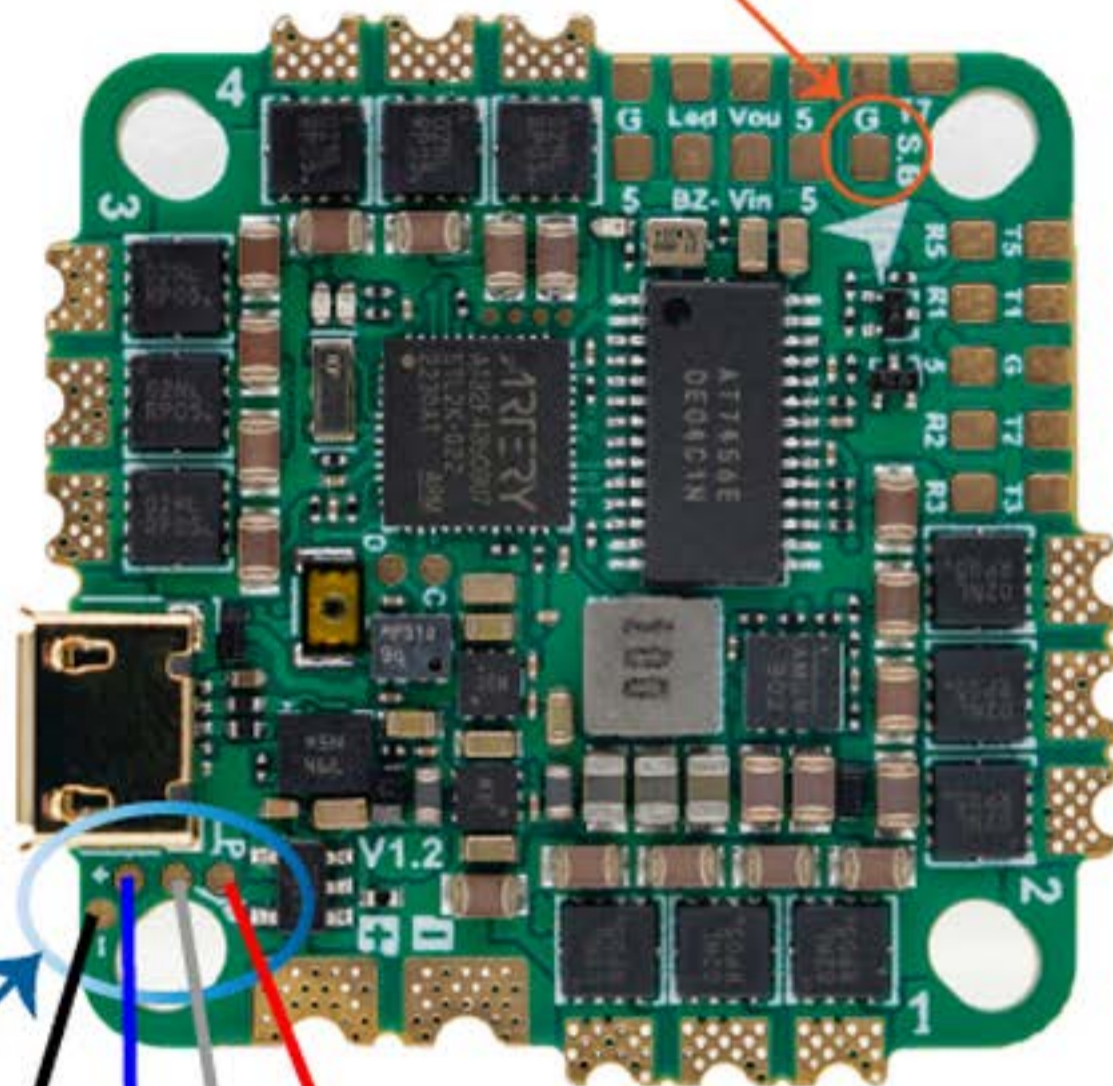
AT32F435 AIO V1.0

AT32F435 AIO V1.2

Change and add S. BUS pad

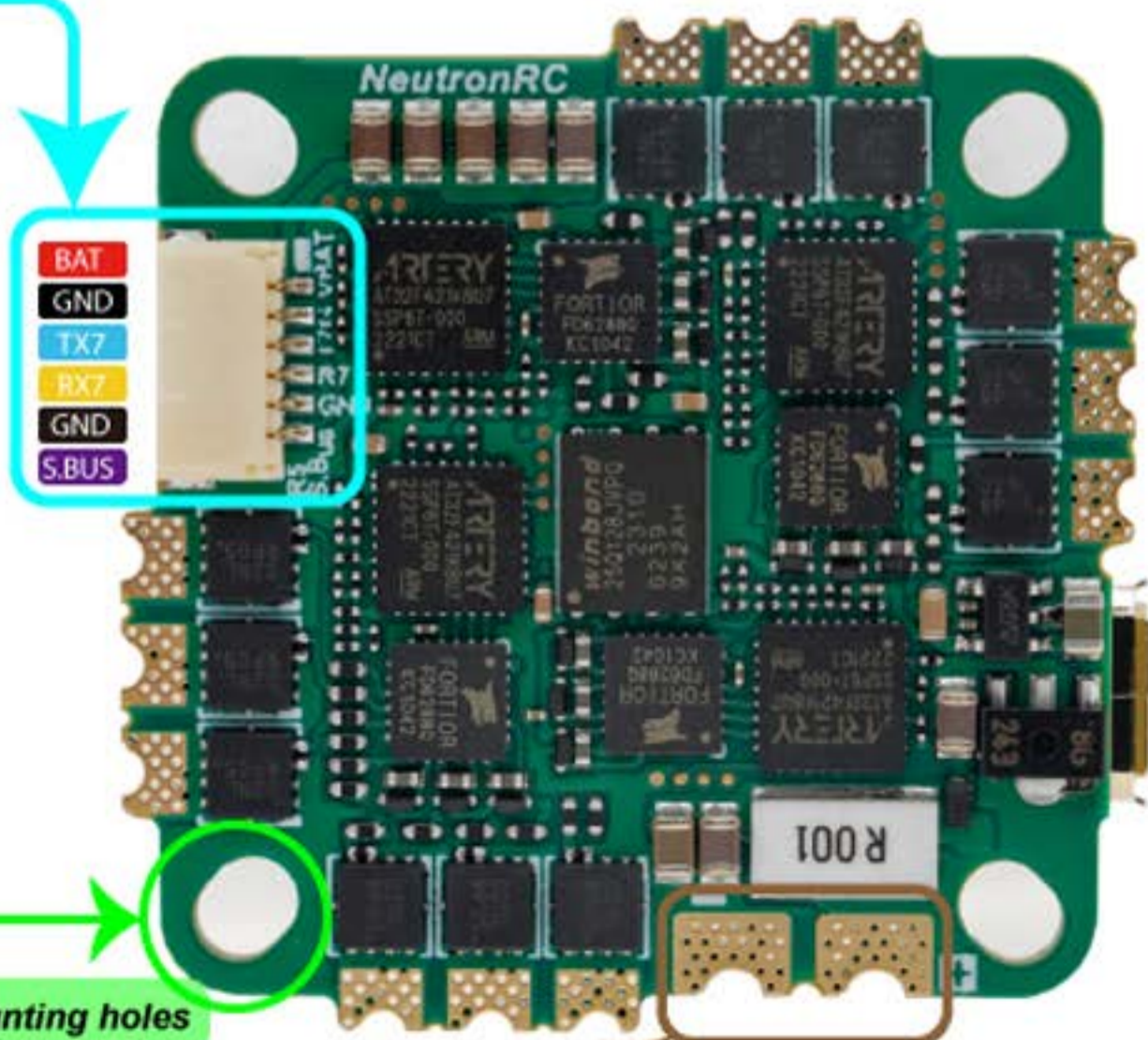
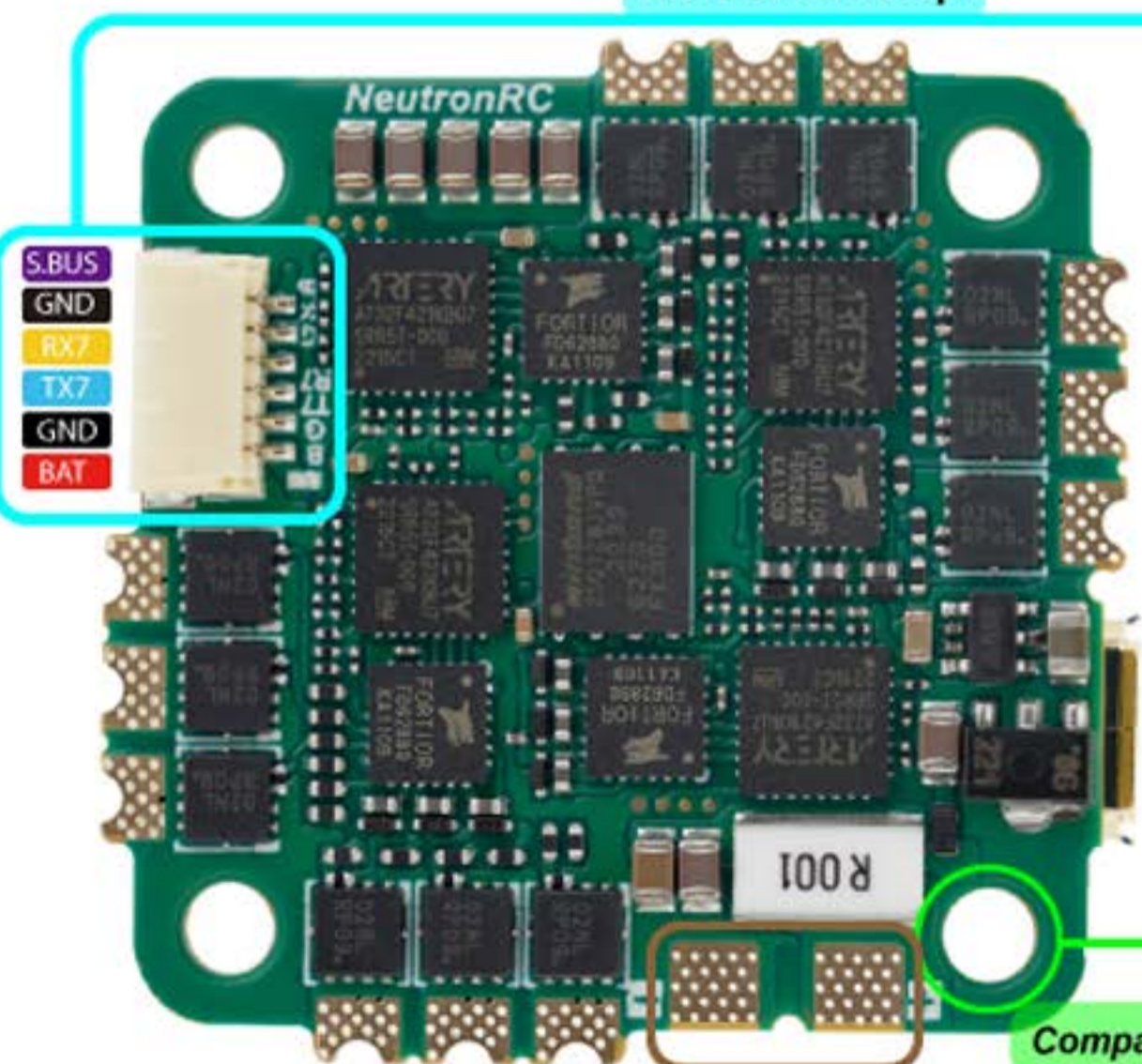


Add external USB pad



GND
USB+
USB-
VUSB

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		

