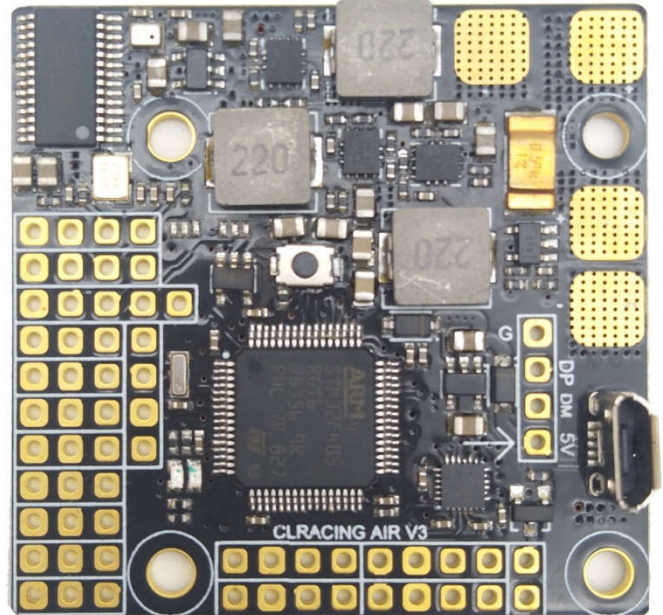


CL_RACINGF4 AIR V3

The Flight Controller for AIR

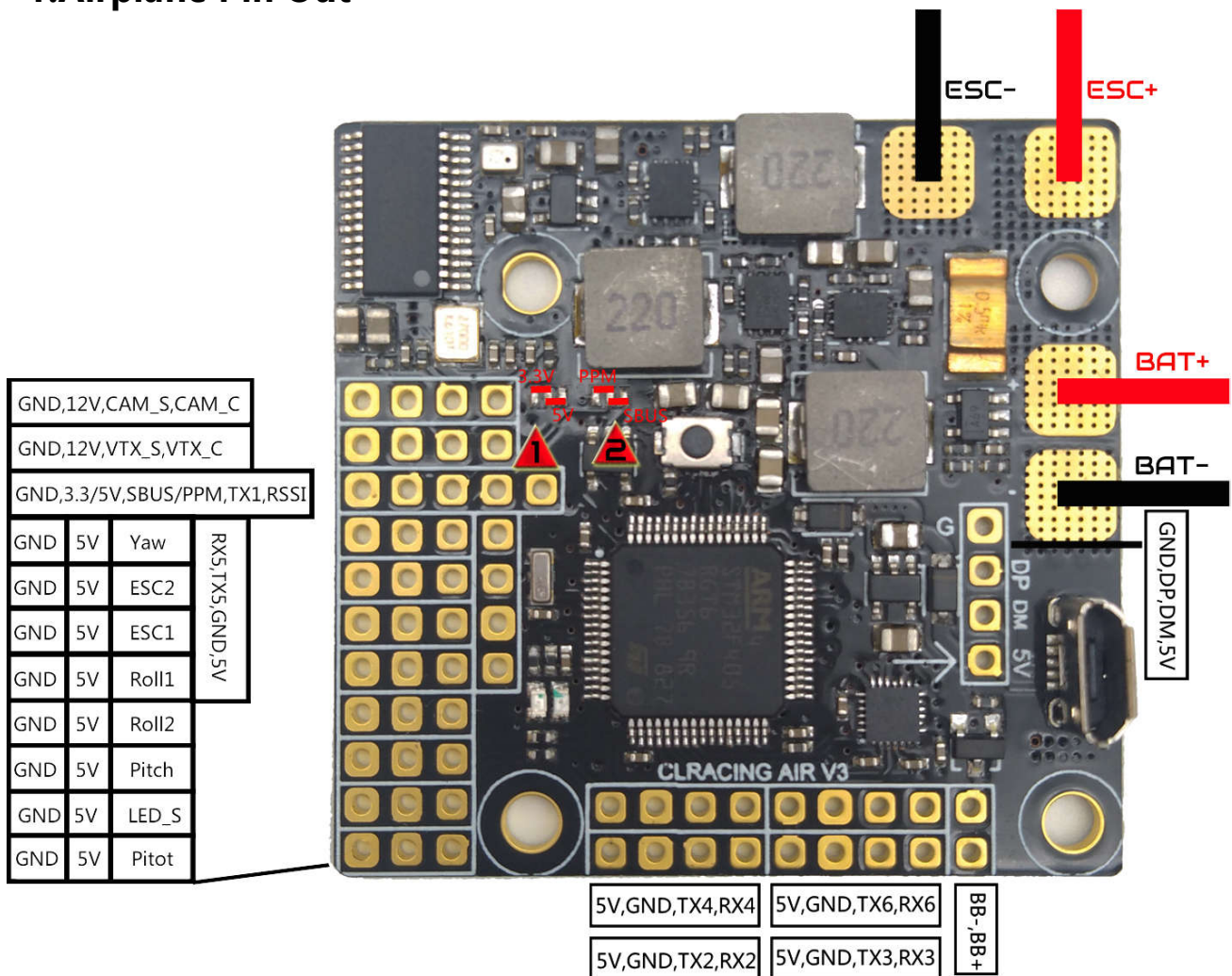
Main Features

1. MCU 168MHz STM32F405RGT
2. 9-Axis MPU9250 SPI
3. BP280 Baro
4. 2 motor Outputs
5. Servos outputs
6. Buzzer pins
7. Rssi pin
8. Build in Betaflight OSD
9. Up to 6S direct battery power
10. Build in Voltage monitoring resistor
11. Build in PDB with 130A current sensor
12. Build in 5V/3A bec dedicated for Servos
13. Build in 12V/3A BEC dedicated for video and camera
14. Build in 5V/3A BEC and 3.3V/500mA for system
15. Led_strip share 5V with servo power
16. 6 UARTS: UART1(Serial rx), UART2, UART3, UART4, UART5 UART 6
17. Build in Camera_setting pin near camera connection (future implement in Inav)
18. Pilot Tube support with resistor divider
19. 30.5mm X 30.5mm standard mouting holes
20. USB port relocation pins



General Overview

1. Airplane Pin Out



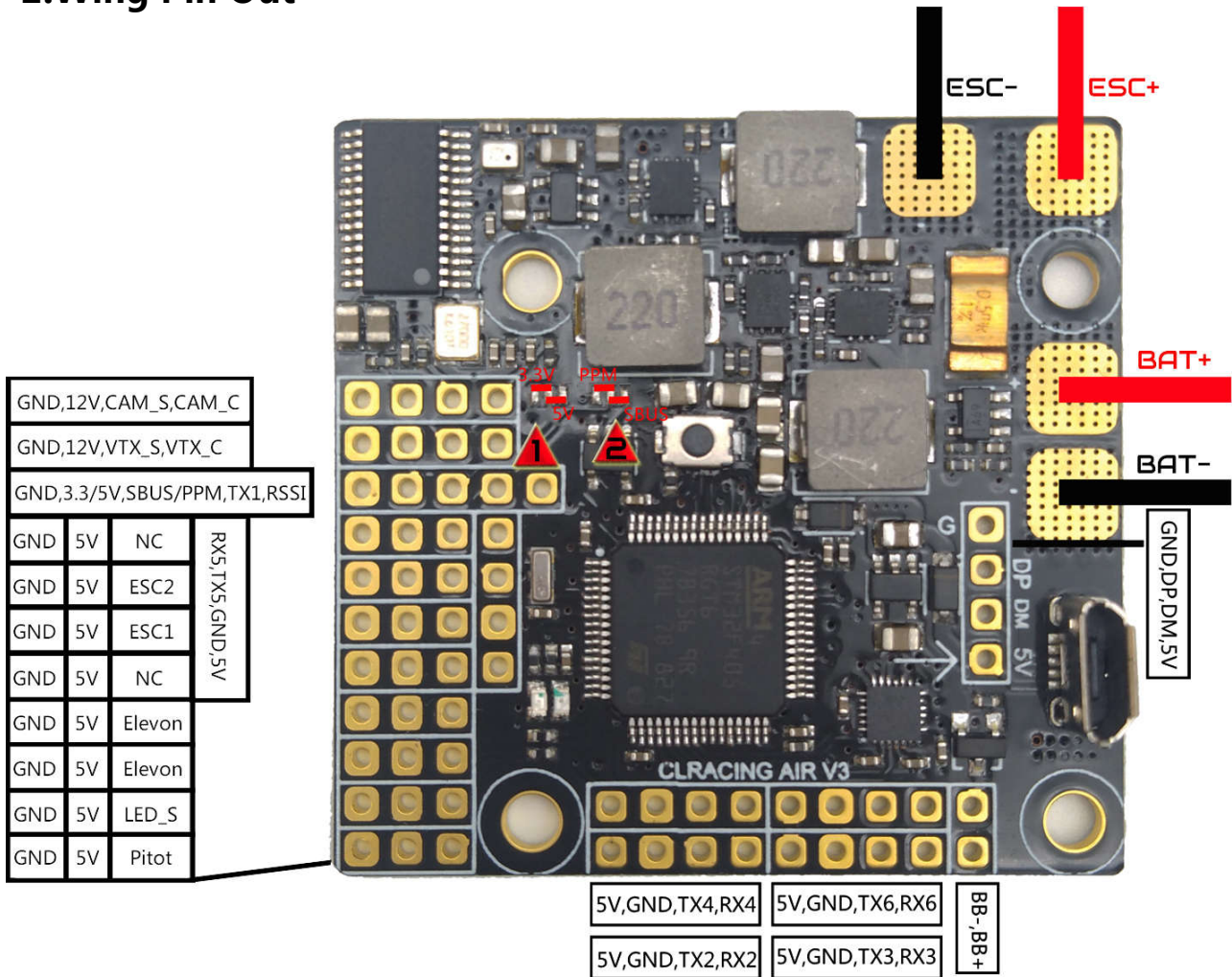
NOTE:

1 Either solder 3.3V or 5.0V for Receiver

2 Either solder SBUS or PPM for Receiver

| NO. | Pad Name | function | NO. | Pad Name | function |
|-----|----------|----------------|-----|----------|----------|
| 1 | VCC | POWER | 15 | DP | USB_DP |
| 2 | GND | GROUND | 16 | DM | USB_DM |
| 3 | CAM_C | CAMERA OSD PIN | 17 | NC | Not used |
| 4 | CAM_S | CAMERA SIGNAL | 18 | TX2 | UART2 TX |
| 5 | VTX_S | VTX SIGNAL | 19 | RX2 | UART2 RX |
| 6 | VTX_C | VTX CONTROL | 20 | TX3 | UART3 TX |
| 7 | PPM | PPM RECEIVER | 21 | RX3 | UART3 RX |
| 8 | SBUS | SBUS RECEIVER | 22 | TX4 | UART4 TX |
| 9 | RSSI | RSSI | 23 | RX4 | UART4 RX |
| 10 | TX1 | UART1 TX | 24 | TX5 | UART5 TX |
| 11 | Pitot | Pitot Tube | 25 | RX5 | UART5 RX |
| 12 | LED_S | LED SIGNAL | 26 | TX6 | UART6 TX |
| 13 | BB+ | BEEPER + | 27 | RX6 | UART6 RX |
| 14 | BB- | BEEPER - | 28 | | |

2.Wing Pin Out



NOTE:

- 1** Either solder 3.3V or 5.0V For Receiver
- 2** Either solder SBUS or PPM For Receiver

| NO. | Pad Name | function | NO. | Pad Name | function |
|-----|----------|----------------|-----|----------|----------|
| 1 | VCC | POWER | 15 | DP | USB_DP |
| 2 | GND | GROUND | 16 | DM | USB_DM |
| 3 | CAM_C | CAMERA OSD PIN | 17 | NC | Not used |
| 4 | CAM_S | CAMERA SIGNAL | 18 | TX2 | UART2 TX |
| 5 | VTX_S | VTX SIGNAL | 19 | RX2 | UART2 RX |
| 6 | VTX_C | VTX CONTROL | 20 | TX3 | UART3 TX |
| 7 | PPM | PPM RECEIVER | 21 | RX3 | UART3 RX |
| 8 | SBUS | SBUS RECEIVER | 22 | TX4 | UART4 TX |
| 9 | RSSI | RSSI | 23 | RX4 | UART4 RX |
| 10 | TX1 | UART1 TX | 24 | TX5 | UART5 TX |
| 11 | Pitot | Pitot Tube | 25 | RX5 | UART5 RX |
| 12 | LED_S | LED SIGNAL | 26 | TX6 | UART6 TX |
| 13 | BB+ | BEEPER + | 27 | RX6 | UART6 RX |
| 14 | BB- | BEEPER - | 28 | | |