

pixhawk[®] 4

Pinouts

TELEM1, TELEM2 ports

| Pin | Signal | Volt |
|----------|----------|-------|
| 1(red) | VCC | +5V |
| 2(black) | TX(out) | +3.3V |
| 3(black) | RX(in) | +3.3V |
| 4(black) | CTS(in) | +3.3V |
| 5(black) | RTS(out) | +3.3V |
| 6(black) | GND | GND |

UART & I2C B port *

| Pin | Signal | Volt |
|----------|---------|-------|
| 1(red) | VCC | +5V |
| 2(black) | TX(out) | +3.3V |
| 3(black) | RX(in) | +3.3V |
| 4(black) | SCL2 | +3.3V |
| 5(black) | SDA2 | +3.3V |
| 6(black) | GND | GND |

*A spare port for connecting sensors supporting serial communication or I2C e.g. a second GPS module can be connected here.

DSM RC port

| Pin | Signal | Volt |
|-----------|------------------|-------|
| 1(null) | VDD_5V_SBUS_RC | +5V |
| 2(yellow) | SBUS* | +3.3V |
| 3(null) | RSSI** | +3.3V |
| 4(red) | VDD_3V3_SPEKTRUM | +3.3V |
| 5(black) | GND | GND |

SBUS RC port

| Pin | Signal | Volt |
|-----------|------------------|-------|
| 1(red) | VDD_5V_SBUS_RC | +5V |
| 2(yellow) | SBUS* | +3.3V |
| 3(null) | RSSI** | +3.3V |
| 4(null) | VDD_3V3_SPEKTRUM | +3.3V |
| 5(black) | GND | GND |

*Connect SBUS or DSM/Spektrum receiver's signal wire connect here.

** Sends the RC signal strength info to autopilot.

CAP & ADC IN port

| Pin | Signal | Volt |
|----------|--------------|--------|
| 1(red) | VCC | +5V |
| 2 black) | FMU_CAP1 | +3.3V |
| 3(black) | FMU_CAP2 | +3.3V |
| 4(black) | FMU_CAP3 | +3.3V |
| 5(black) | TIM5_SPARE_4 | +3.3V |
| 6(black) | ADC1_SPARE_1 | +3.3V* |
| 7(black) | ADC1_SPARE_2 | +6.6V* |
| 8(black) | GND | GND |

*WARNING: Sensors connected to this pin should not send a signal exceeding this voltage!

GPS port

| Pin | Signal | Volt |
|-----------|-------------------|-------|
| 1(red) | VCC | +5V |
| 2 black) | TX(out) | +3.3V |
| 3(black) | RX(in) | +3.3V |
| 4(black) | SCL1 | +3.3V |
| 5(black) | SDA1 | +3.3V |
| 6(black) | SAFETY_SWITCH | +3.3V |
| 7(black) | SAFETY_SWITCH_LED | +3.3V |
| 8(black) | VDD_3V3 | +3.3V |
| 9(black) | BUZZER | +5V |
| 10(black) | GND | GND |

FMU PWM OUT port

| Pin | Signal | Volt |
|-----------|-----------|-------|
| 1(red) | VDD_SERVO | |
| 2 black) | FMU_CH1 | +3.3V |
| 3(black) | FMU_CH2 | +3.3V |
| 4(black) | FMU_CH3 | +3.3V |
| 5(black) | FMU_CH4 | +3.3V |
| 6(black) | FMU_CH5 | +3.3V |
| 7(black) | FMU_CH6 | +3.3V |
| 8(black) | FMU_CH7 | +3.3V |
| 9(black) | FMU_CH8 | +3.3V |
| 10(black) | GND | GND |

I2C A port

| Pin | Signal | Volt |
|----------|--------|-------|
| 1(red) | VCC | +5V |
| 2(black) | SCL4 | +3.3V |
| 3(black) | SDA4 | +3.3V |
| 4(black) | GND | GND |

PPM RC port

| Pin | Signal | Volt |
|-----------|--------|-------|
| 1(red) | VCC | +5V |
| 2(yellow) | PPM | +3.3V |
| 3(black) | GND | GND |

SPI port

| Pin | Signal | Volt |
|-----------|--------|-------|
| 1(red) | VCC | +5V |
| 2 (black) | SCK | +3.3V |
| 3(black) | MISO | +3.3V |
| 4(black) | MOSI | +3.3V |
| 5(black) | CS1 | +3.3V |
| 6(black) | CS2 | +3.3V |
| 7(black) | GND | GND |

Power 1, Power 2 ports

| Pin | Signal | Volt |
|----------|---------|-------|
| 1(red) | VCC | +5V |
| 2(black) | VCC | +5V |
| 3(black) | CURRENT | +3.3V |
| 4(black) | VOLTAGE | +3.3V |
| 5(black) | GND | GND |
| 6(black) | GND | GND |

USB port

| Pin | Signal | Volt |
|----------|--------|-------|
| 1(red) | VBUS | +5V |
| 2(black) | DM | +3.3V |
| 3(black) | DP | +3.3V |
| 4(black) | GND | GND |

CAN1, CAN2 ports

| Pin | Signal | Volt |
|----------|--------|-------|
| 1(red) | VCC | +5V |
| 2(black) | CANH | +3.3V |
| 3(black) | CANL | +3.3V |
| 4(black) | GND | GND |

SBUS OUT port

| Pin | Signal | Volt |
|-----------|----------|-------|
| 1(red) | | |
| 2(yellow) | SBUS_OUT | +3.3V |
| 3(black) | GND | GND |

I/O PWM OUT port

| Pin | Signal | Volt |
|-----------|-----------|-------|
| 1(red) | VDD_SERVO | |
| 2 (black) | IO_CH1 | +3.3V |
| 3(black) | IO_CH2 | +3.3V |
| 4(black) | IO_CH3 | +3.3V |
| 5(black) | IO_CH4 | +3.3V |
| 6(black) | IO_CH5 | +3.3V |
| 7(black) | IO_CH6 | +3.3V |
| 8(black) | IO_CH7 | +3.3V |
| 9(black) | IO_CH8 | +3.3V |
| 10(black) | GND | GND |