



PX4FMU - Flight Management Unit

QUICK START - HARDWARE VERSION 1.7

Description

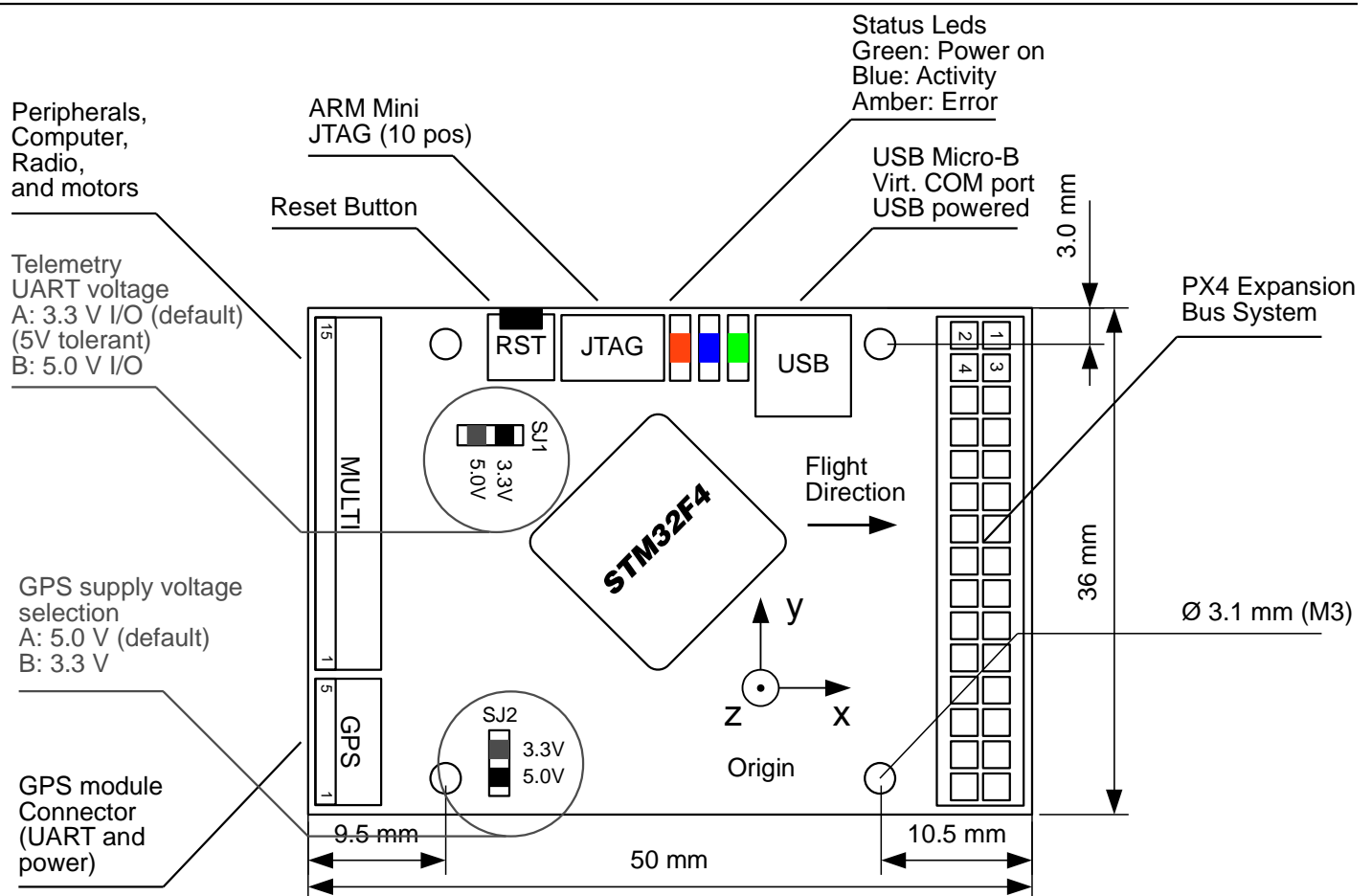
PX4FMU is an onboard management unit for micro air vehicles. It combines an autopilot and inertial measurement unit and enables the control of an aircraft using a single-board solution. Additional I/O can be easily connected via the 30-pin expansion bus.

<http://pixhawk.ethz.ch/px4/>

Features

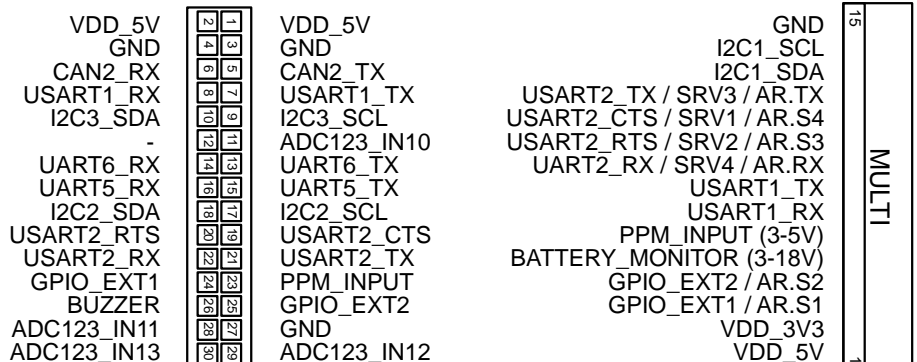
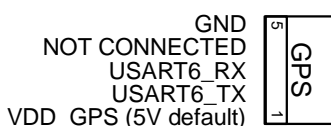
- 168 Mhz Cortex-M4 CPU (196 KB RAM, 1 MB Flash)
- 250 mW typical power consumption
- Reverse polarity protection on all power inputs
- 3D gyro, accelerometer and magnetometer, pressure sensors
- I2C, 3x UART, PPM, analog, GPS, 2x 5V GPIO, 4x PWM / Servo
- MicroSD card slot
- Expansion bus: CAN, 2x I2C, SPI, 4x analog, 2x UART, GPIOs
- USB Serial Port (Virtual COM Port / VCP) and bootloader
- 50 x 36 x 6 mm (1.38x1.97x0.24"), 8g, 30x30 mm mounting holes
- 4.5-6 V wide supply input range (incl. USB power)
- Selectable 3.3 V or 5 V IO for UART2 and GPS ports

Connectors, Jumpers and Dimensions



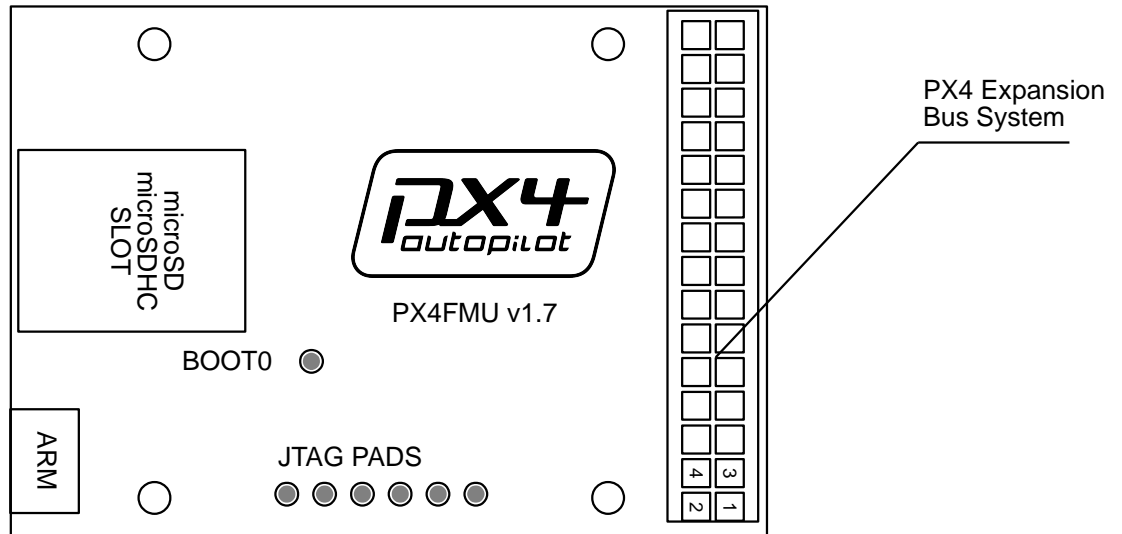
Pinout and absolute maximum Ratings

- Input: 4.3-6 V (VDD_5V), 20 mA onboard use, max. 800 mA for max peripheral load. Reverse-polarity protected.
- Output: 3.3 V (VDD_3V3), fuse-limited 500 mA EXT, 3.3 V, fuse-limited 200 mA GPS



Additional connectors (bottom side)

The footprints on the bottom side of the connector can be used by advanced users to interface additional boards or sensors.



Software Tools / Getting Started

Please check the most recent user manual at <https://pixhawk.ethz.ch/px4/users/>

Upgrading Firmware / Developing Custom Code

Please check the most recent developer instructions at <https://pixhawk.ethz.ch/px4/dev/>

Open Hardware License

PX4FMU is an open hardware design, following the OSHW 1.1 definition licensed under the Creative Commons Attribution-ShareAlike 3.0 Unported (CC BY-SA 3.0) license. PX4FMU uses the BSD-licensed NuttX operating system as base for the PX4 software stack (<http://nuttx.sourceforge.net>).

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