# PX2FMU – Flight Management Unit

## QUICK START - HARDWARE VERSION 0.2 DEV

### **Description**

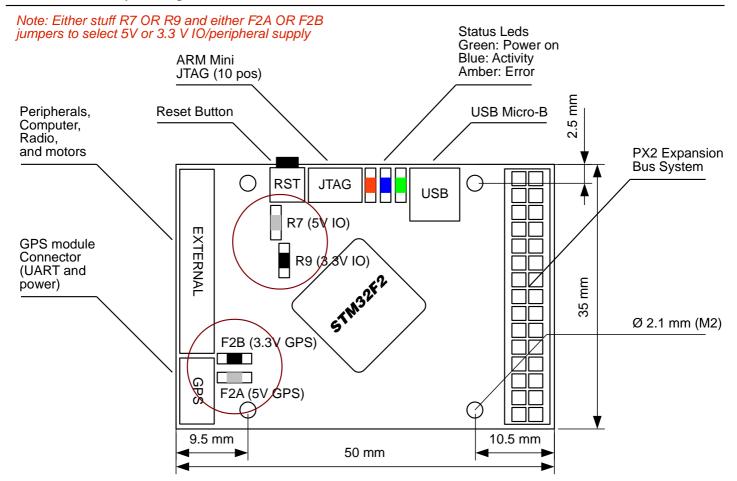
PX2FMU is an onboard management unit for micro air vehicles. It combines autopilot and inertial measurement unit and allows to control an aircraft using a single-board solution. The 30-pin expansion bus allows to combine it with other modules to provide additional I/O.

http://github.com/qgc/hardware

#### **Features**

- •120 Mhz Cortex-M3 CPU (128 KB RAM, 1 MB Flash)
- •50 mW power consumption
- •3D Gyro, ACC and Magnetometer
- Barometric pressure
- •CAN/SPI/I2C/4x UART interfaces
- •PX2 Expansion bus (PX2IO: Servo and solid state relay outputs)
- USB Bootloader
- •50x35x6 mm (1.38x1.97x0.24"), 8g, 30x30 mm mounting holes •4.3-6V wide supply input range (incl. USB power)
- •Selectable 3.3V or 5V IO

## **Connectors, Jumpers and Dimensions**



## Pinout and absolute maximum Ratings

•Input: 4.3-6V, 10 mA onboard use, max. 800 mA peripheral supply •Output: 5V/3.3V, fuse-limited 500 mA EXT, 5V/3.3V, fuse-limited 200 mA GPS

GND VDD\_GPS (3.3 or 5V) USART6\_RX USART6\_TX GND

NOT CONNECTED (NC)

GPS

VDD 5V GND CAN2\_RX USART1\_RX\_EXT I2C3\_SDA SPI3\_MOSI SPI3\_NSS UART5\_RX I2C2\_SDA USART2\_RTS USART2\_RX GPIO\_EXT1 PC8 ADC123\_IN11

ADC123\_IN13

2 1 3

VDD 5V GND CAN2\_TX USART1\_TX\_EXT I2C3\_SCL SPI3\_SCK SPI3\_MISO UART5\_TX I2C2\_SCL USART2\_CTS USART2\_TX PPM\_INPUT GPIO\_EXT2 GND ADC123\_IN12

VDD 5V VDD\_5V VDD\_3V3 I2C1\_SCL I2C1\_SDA USART2\_TX USART2\_CTS USART2\_RTS UART2\_RX USART1\_TX\_EXT USART1\_TX\_EXT PPM\_INPUT (3-5V) GPIO\_EXT2 GPIO\_EXT1 BATTERY\_MONITOR (3-18V)

**EXTERNAL**