

# PX2FMU MANUAL

VERSION 0.2 DEV

## Description

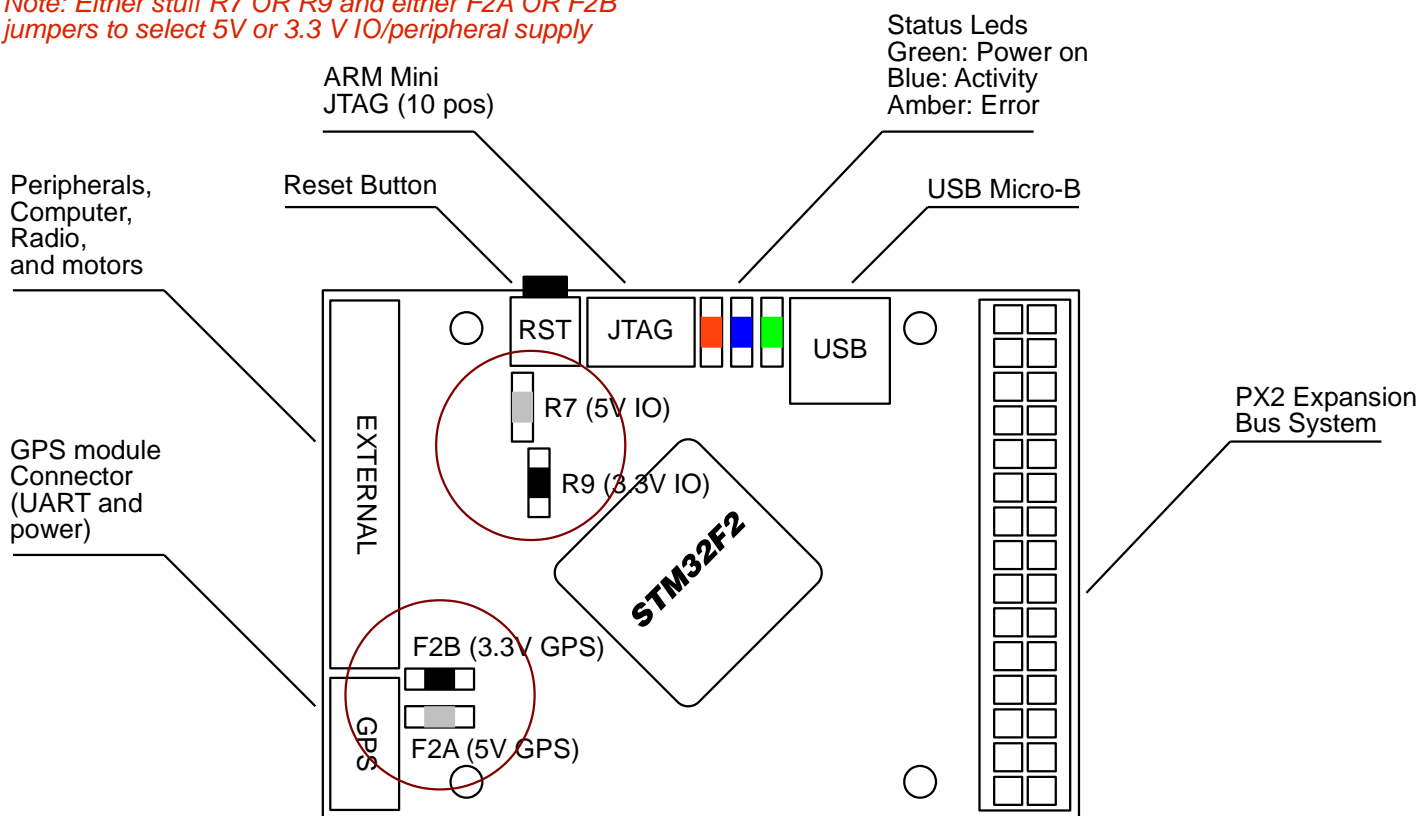
PX2FMU is a next-generation flight management unit (FMU). It combines autopilot and inertial measurement unit and allows to control an aircraft using a single-board solution. With 120 Mhz Cortex M3 processing power and 800 Hz sensor update rate it provides top performance.

## Features

- 120 Mhz Cortex-M3 CPU (128 KB RAM, 1 MB Flash)
- 50 mW power consumption
- USB Bootloader
- 50x35x6 mm (1.38x1.97x0.24"), 8g
- 4.3-8V wide supply input range
- Selectable 3.3V or 5V IO
- 3D Gyro, ACC and Magnetometer
- Barometric pressure
- CAN/SPI/I2C/4x UART interfaces
- USB powered / 5V powered

## Connectors, Jumpers and Dimensions

*Note: Either stuff R7 OR R9 and either F2A OR F2B jumpers to select 5V or 3.3 V IO/peripheral supply*



## 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)	

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
4	3
6	5
8	7
10	9
12	11
14	13
16	15
18	17
20	19
22	21
24	23
26	25
28	27
30	29

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	
VCC_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)	
GND	

1	
3	
5	
7	
9	
11	
13	
15	
17	
19	
21	
23	
25	
27	
29	
31	