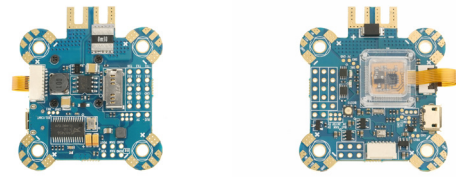


OMNIBUS F4 Pro Corner

The Omnibus F4 Pro Corner flight controller uses the ICM20608 over SPI for the best possible flight performance. With onboard damping box, the ICM20608 runs perfect under 32k Gyro loop. If you haven't already seen it, you should check out Josh's awesome video on different IMUs. Also onboard are a barometer and AB7456 OSD chip for the BetaFlight integrated OSD.

Omnibus F4 Pro Corner supports 3-6s LIPO direct input, build in Current Sensor and Power Filter too.

The on Board PDB is tweaked by using 12-Layer PCB design. There is only 0.2-0.5 mohm internal resistance from input to each output pads

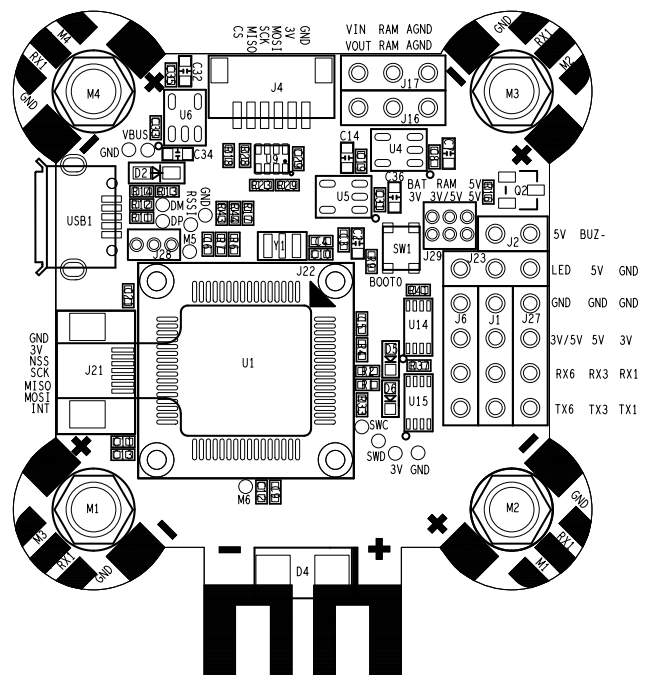
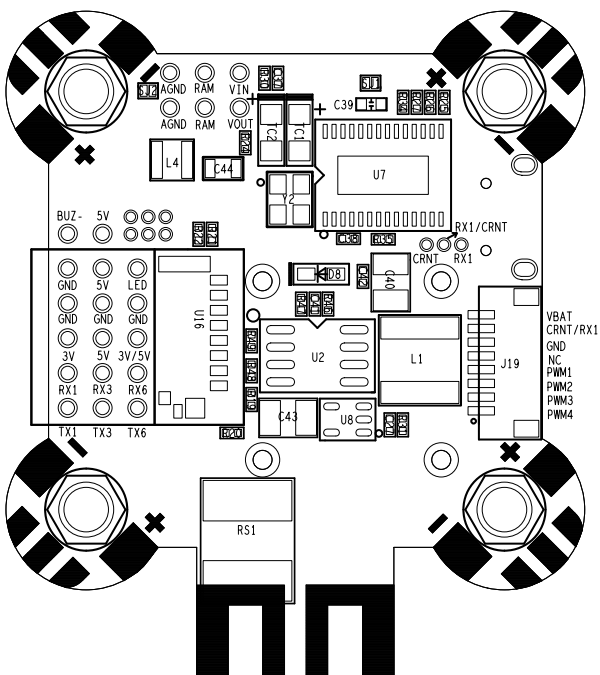


- STM32 F405 MCU, Runs Betaflight firmware(supported from v3.2)
- ICM20608 Over SPI Bus in damping box. (optional MPU6000)
- 30.5x30.5mm Mounting holes
- Supports Lipo direct plug in (3-6S)
- Supports 5V 1A BEC output(Buck)
- STM32 controls OSD chip over SPI in DMA mode(Betaflight OSD)
- Build in Current sensor
- Build in Professional level PDB
- Build in LC filter for Camera power(max 800ma)

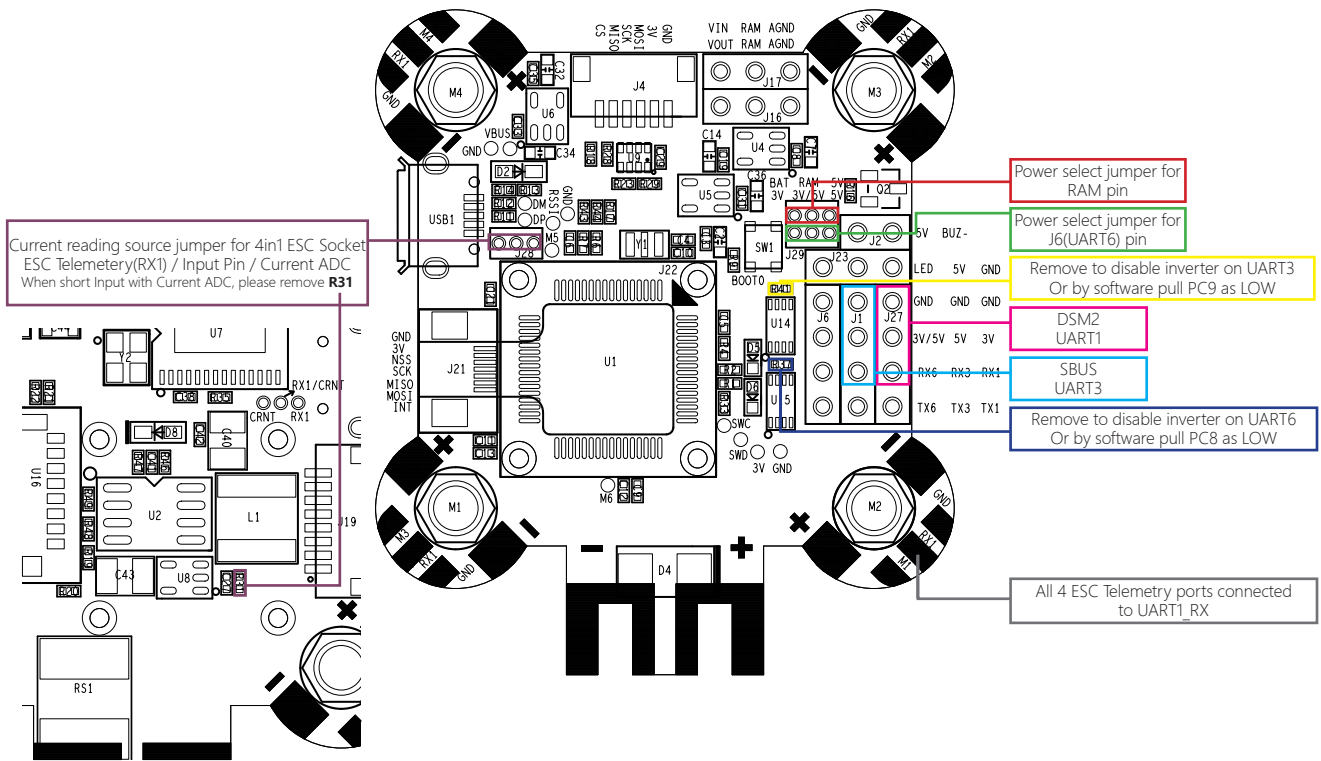
Firmware update

OMNIBUS has been supported by Betaflight v3.2, you can use Target "OMNIBUSF4SD" to update the firmware.

Pin map

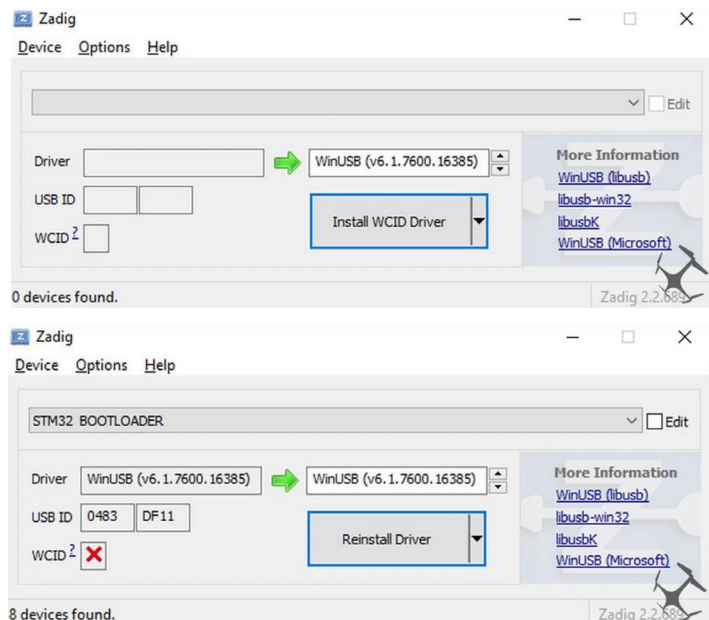


Connection example



How to use the onboard USB port updated firmware in GUI on windows

To Flash the Firmware you have to enter the so called DFU mode. On Windows 10 I had to use a tool called Zadig (download and start it) to be able to switch drivers for DFU mode to work. In order to switch drivers you have to take the following steps.



- Push BOOT button on the Flight controller.
- Plug-in the USB cable (the red LED should not be as bright as normally).
- Fire up Zadig and hit "Options" and then "List All Devices".
- From the list choose "STM32 BOOTLOADER".
- Under "Driver" choose "WinUSB" on the right and hit "Reinstall Driver".
- Close Zadig, disconnect the Flight controller, close all Google Chrome instances.

* Pictures and text made by : Aerosufer

<http://www.aerosufer.ch/2016/07/25/omnibus-f3-flight-controller/>