OpenDrone

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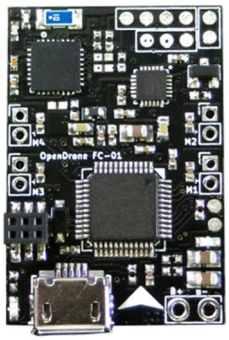
OpenDrone FC-01

Introduction

Most low cost flight controller boards do not consider hardware reliability and EMC design. OpenDrone FC-01 brushed version are PCB 4-layers design in according to efficiency reduced Electromagnetic Interference and Noise generated.



Application

- Drones
- Small Robot Car

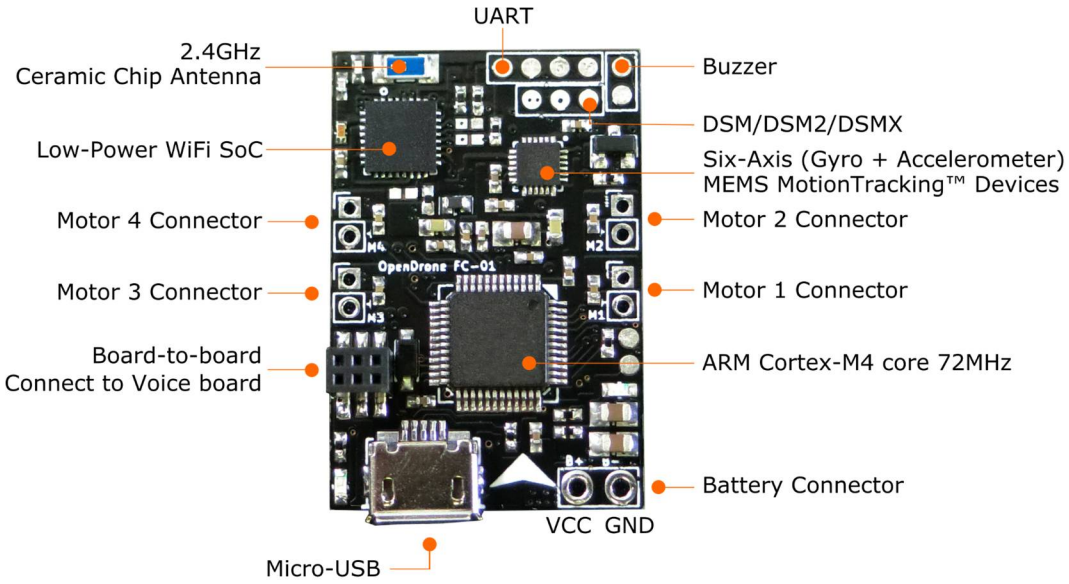
Features

- ARM Cortex-M4 core 72MHz
- Wi-Fi 802.11 b/g/n
- Six-Axis (Gyro + Accelerometer) MEMS MotionTracking™ Devices
- On-Board Digital Pressure Sensor
- Dual PTC Resettable Fuses Protection

Specification

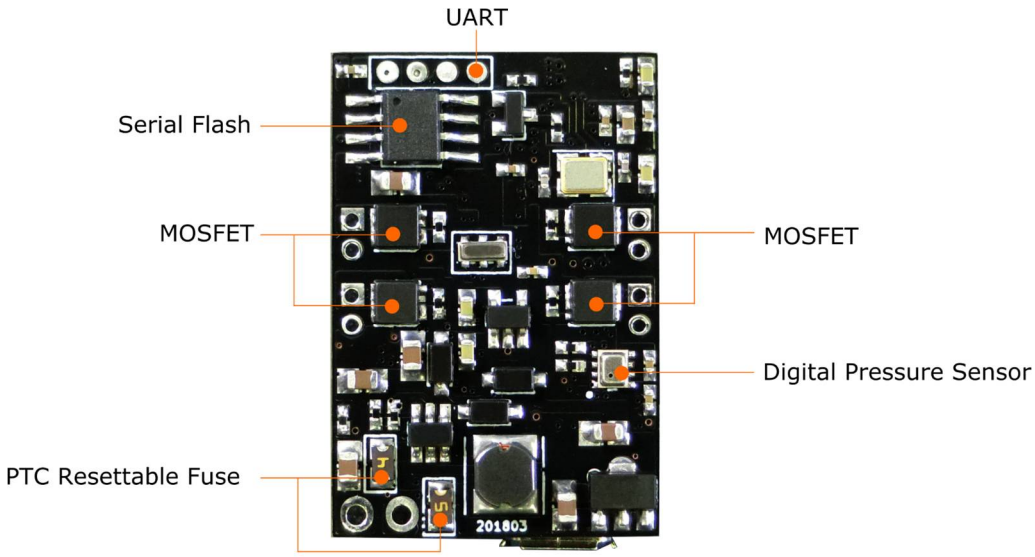
CPU	ARM Cortex-M4 core 72MHz
Wi-Fi	802.11 b/g/n
UART	2 (SBUS/PPM Receiver signal input)
Motor Connector	Support 4 DC Coreless Brushed Motors
DSM/DSM2/DSMX	DSM/DSM2/DSMX Receiver signal input
Micro-USB	Support to upgrade firmware and adjust configuration of Flight Controller
PCB Dimension (L x W)	32.5mm x 22.0mm - 4 layers
Power Input	DC 8.5V (Maximum)
Battery Input Support	1S ~ 2S Li-Po Battery
Operating Temperature	0℃ to 60℃
Storage Temperature	-40℃ to 80℃

Layout



Front - OpenDrone FC-01

- Low-Power Wi-Fi SoC: 802.11 b/g/n support. Connect to OpenDrone Wi-Fi Joystick, you also can connect together with your computer then use Python to do what you like.
- Board-to-board: Connect to top Voice board, you also can play MP3 sound/music.
- Battery Connector: Connect to the battery 1S or 2S voltage input (recommend to use 2S).
- Micro-USB: Upgrade and re-flash firmware when you connect to computer.
- Motor 1/2/3/4: Connect to brushed motor, recommended to use 820/8520.
- UART: SBUS/PPM Receiver signal input.
- DSM/DSM2/DSMX: DSM/DSM2/DSMX Receiver signal input.



Bottom - OpenDrone FC-01

- Serial Flash: This 8Mbit SPI FLASH is used to store Wi-Fi firmware binary.
- MOSFET: There are four 30V N-Channel MOSFET that is uniquely optimized to provide the most efficient high frequency switching performance and minimized power losses.
- PTC Resettable Fuse: Small size results in very fast time to react to fault events.
- Digital Pressure Sensor: The pressure sensor is based on BOSCH's proven Piezo-resistive technology, high accuracy and linearity and long term stability. Useful your drone in altitude mode for maintaining the drone's horizontal orientation.

Contact

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