

# Linux based scout UAV idea

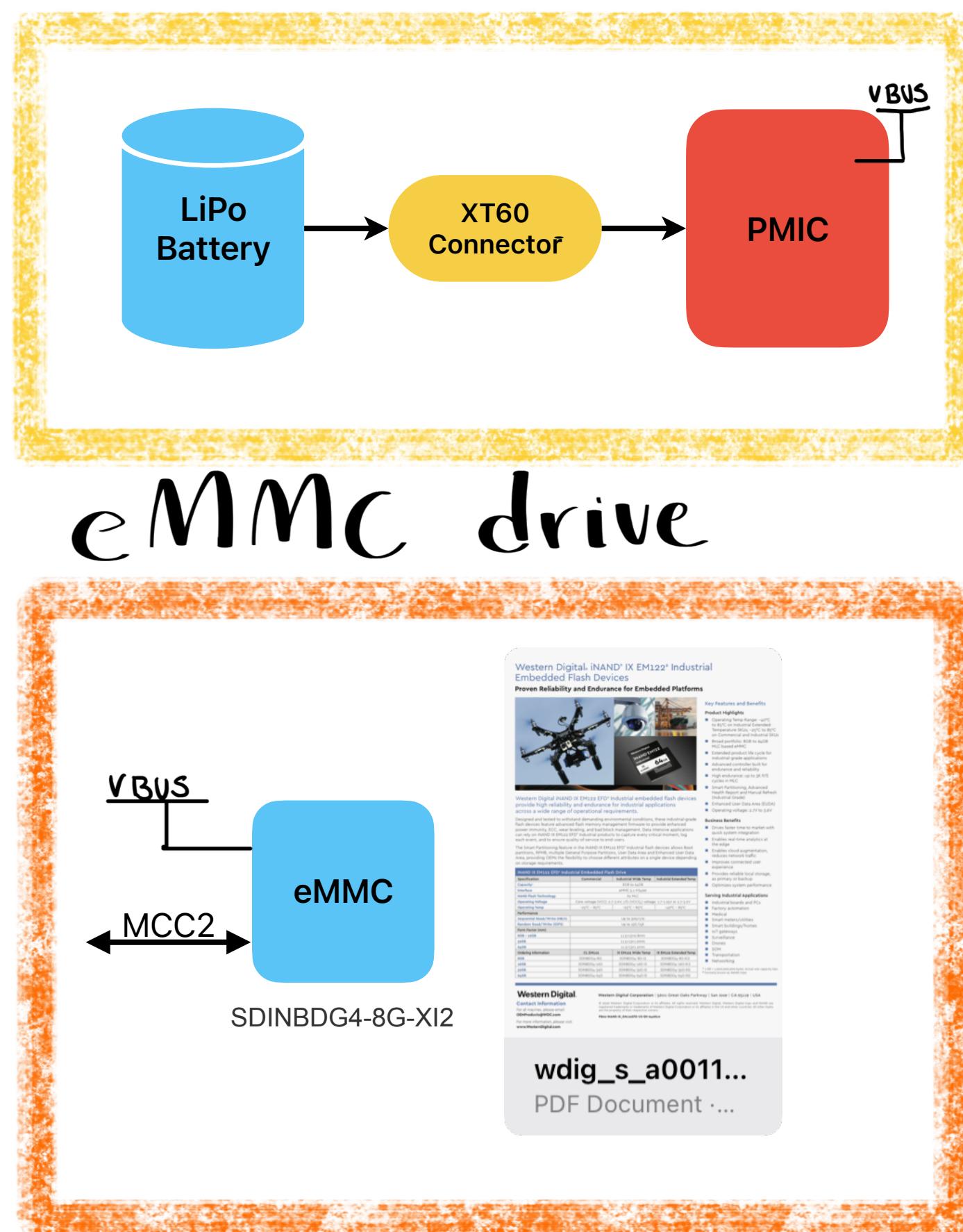
## Requirements:

- Quadcopter drone format.
- System is Linux based.
- Programming interface (USB).
- Battery powered.
- 2G/3G comms capable.
- Global navigation satellite system (GPS/GLONASS/etc.).
- Storage (SD card or eMMC drive).
- MCU sub-system.
- Accelerator sub-system.
- 6DoF sensing.
- Can detect fires in difficult to access areas.
- Environmental sensing.
- Camera sensor for vision.
- Long range radio for data transmission.
- Battery charging in base stations (Optional for later revisions).
- Can deploy battery powered sensor modules in remote areas.

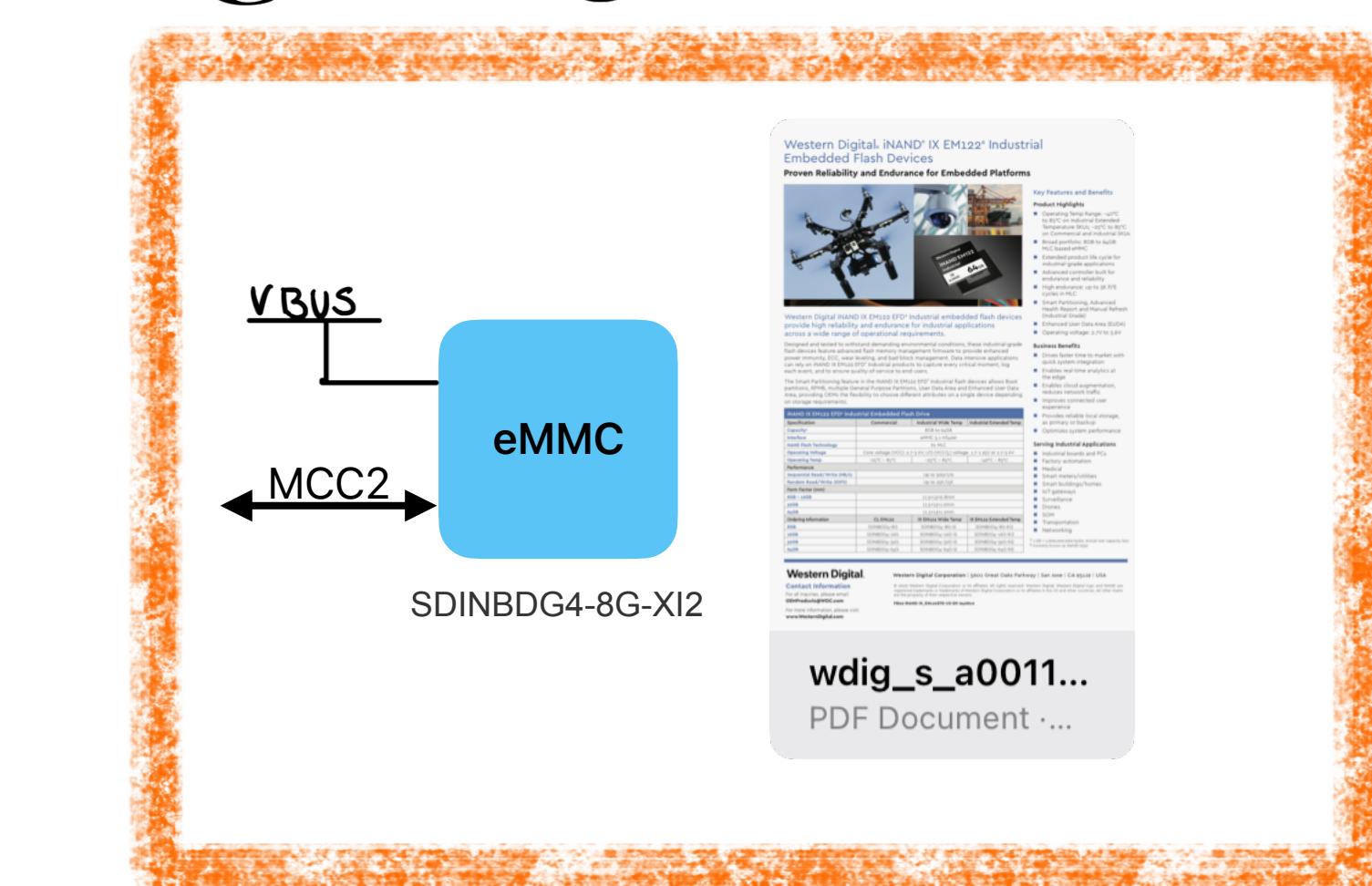
## Components:

- OSD32MP15x Linux capable SiP.
- XT60 LiPo battery connector
- Quectel M65 2G/3G module.
- Quectel GNSS LC76G GPS/GLONASS module.
- OSD32MP15x has a Cortex M4 available.
- Google Coral accelerator over USB.
- InvenSense MPU-6050 3-axis gyroscope & 3-axis accelerometer.
- Panasonic Grid-eye sensor.
- SDINBDG4-8G-X12 eMMC 8G drive.
- OV5640/OV7670 camera modules.
- Microchip RN2903 LoRaWAN module.

## Power Section



## eMMC drive

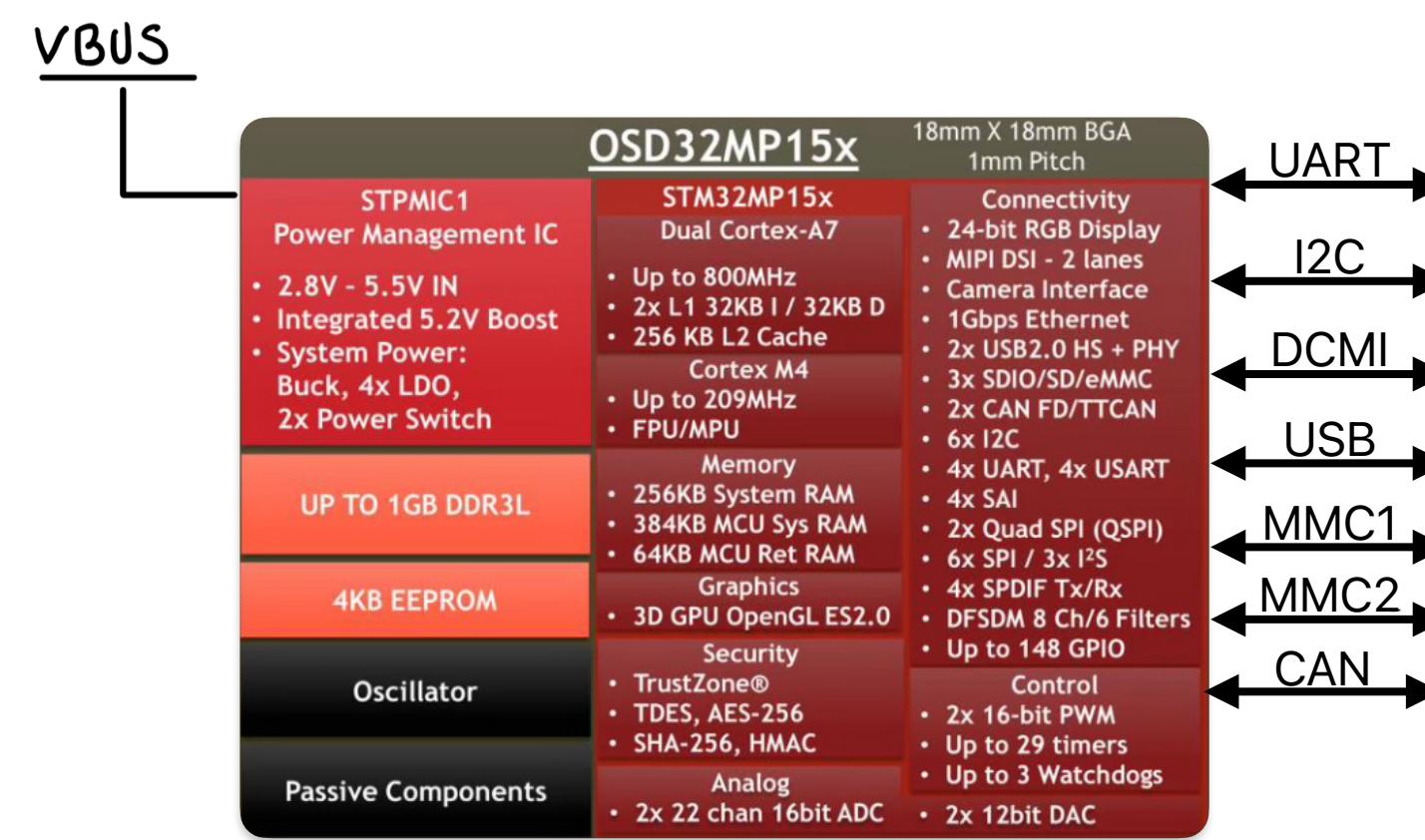


## OSD32MP1 SiP

### Datasheet

STM32MP1 System in Pack...

[octavosystems.com](http://octavosystems.com)



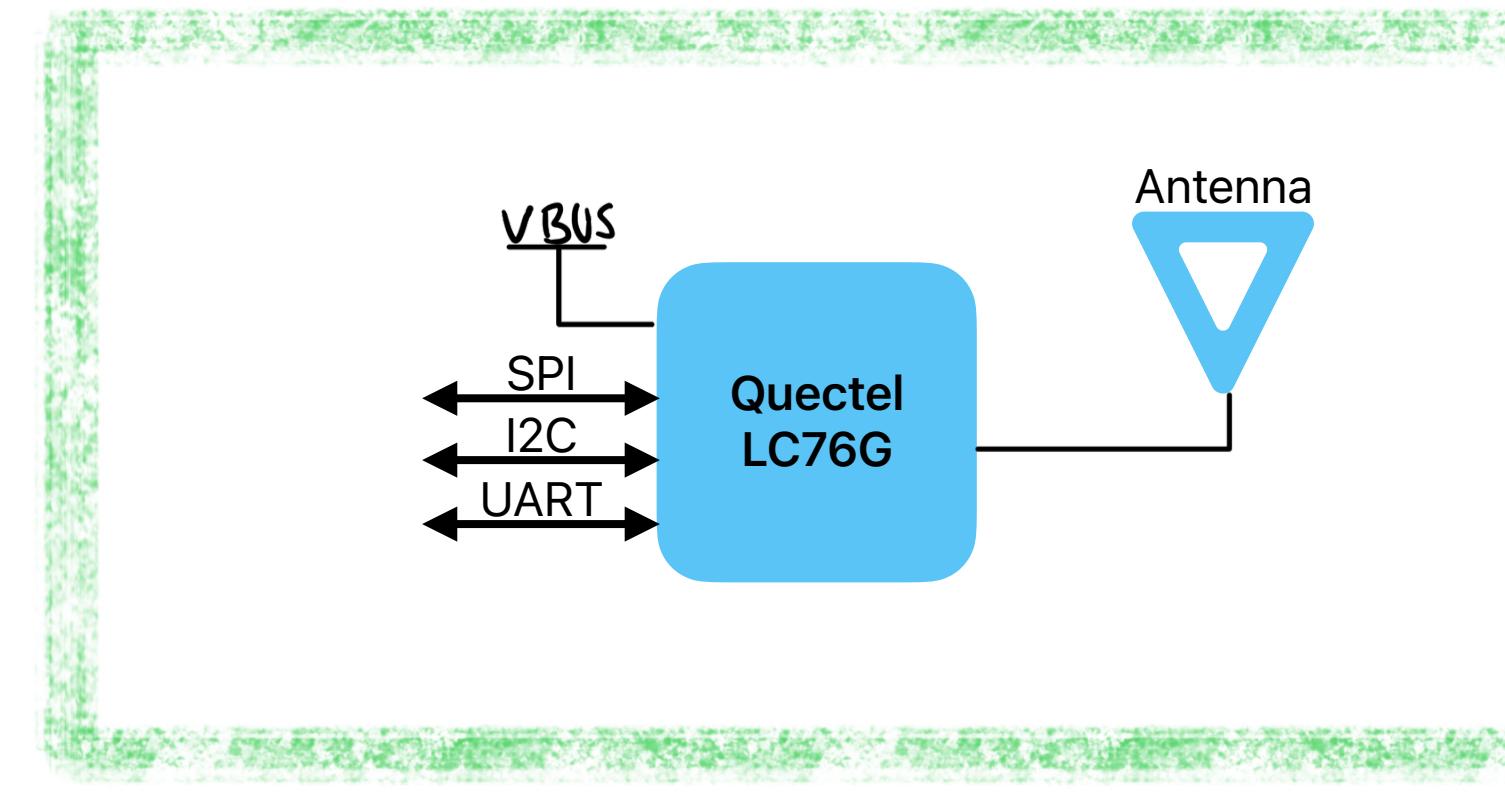
## Accelerator



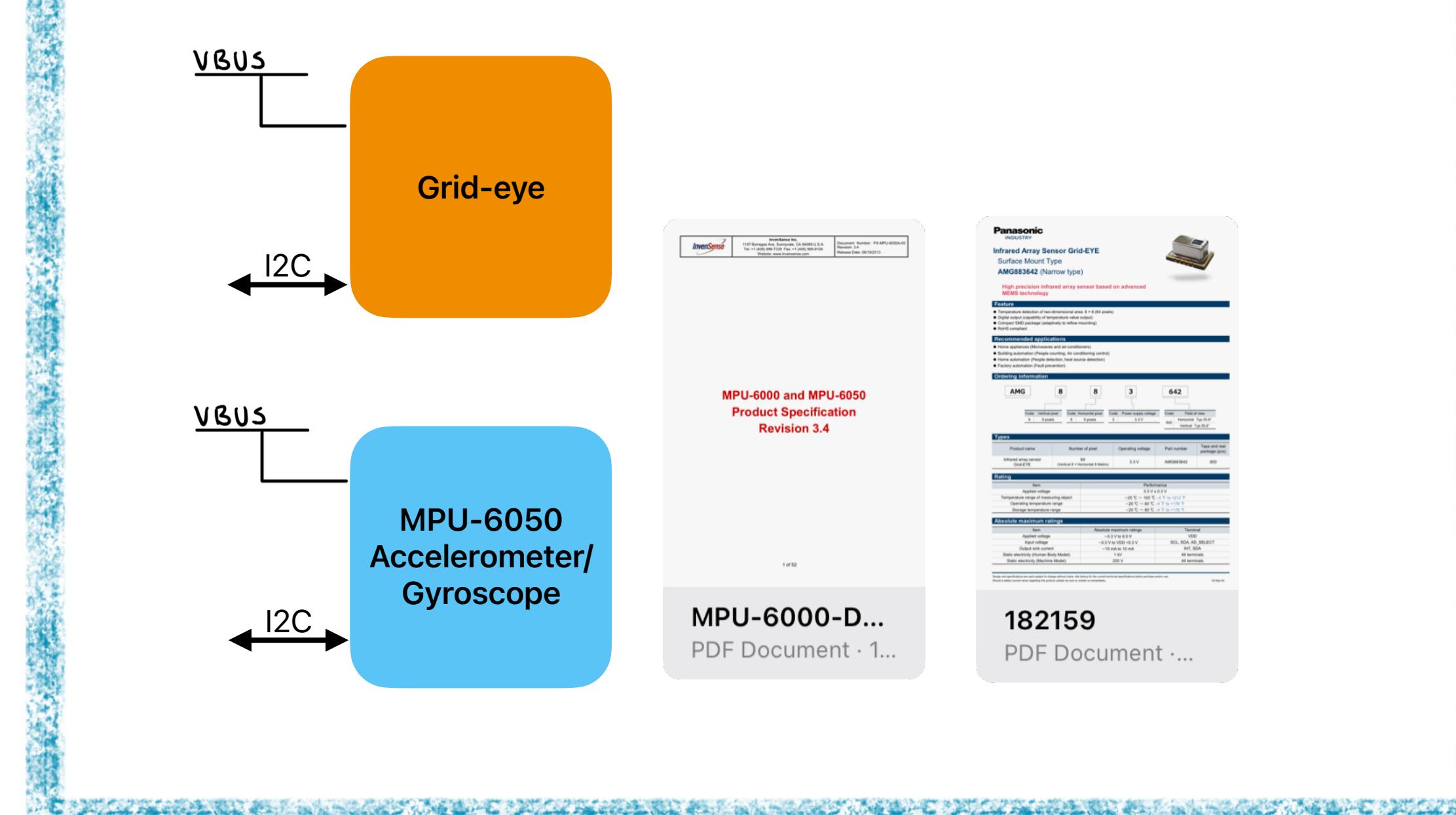
Accelerator Module

[coral.ai](http://coral.ai)

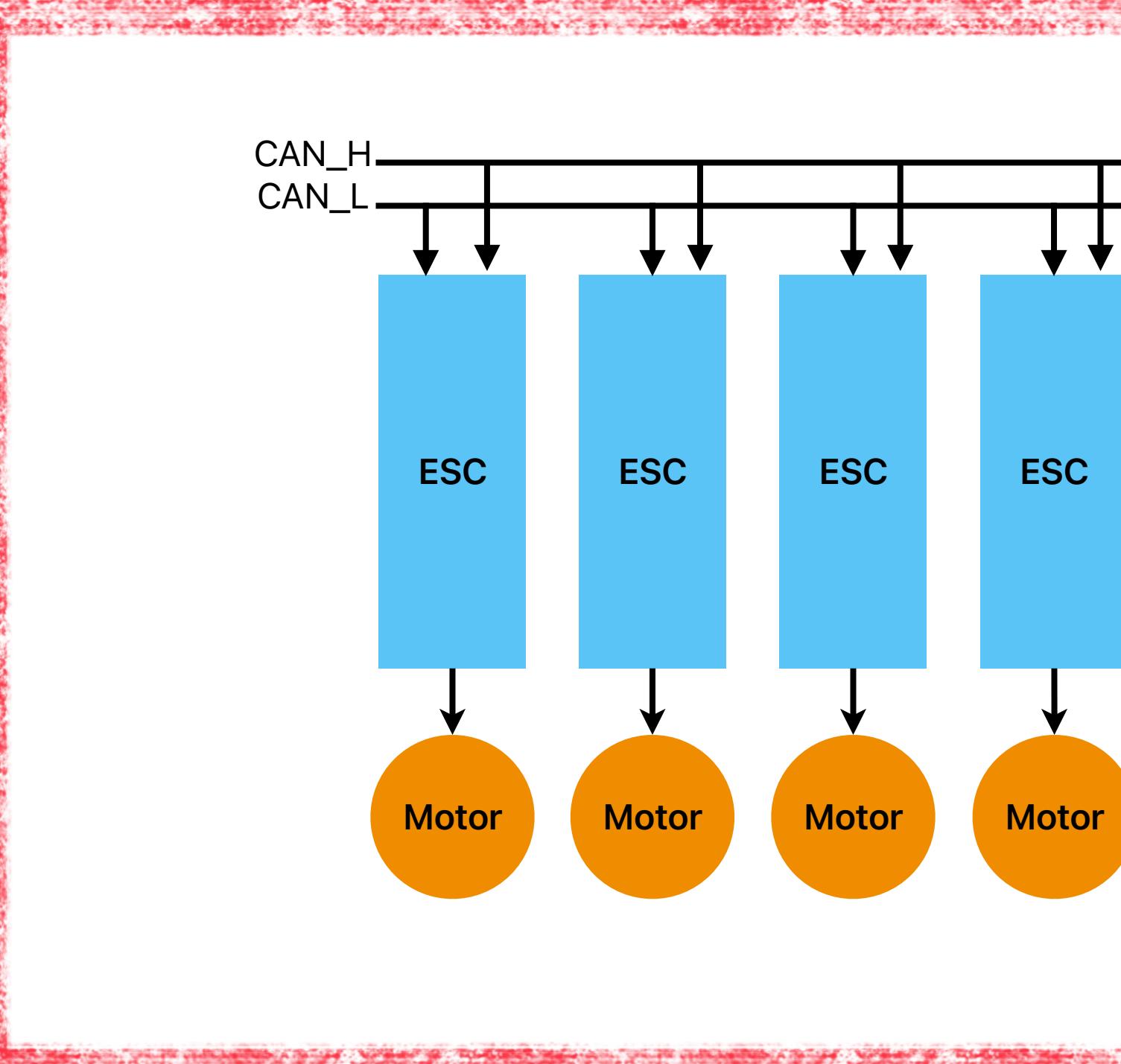
## GNSS module



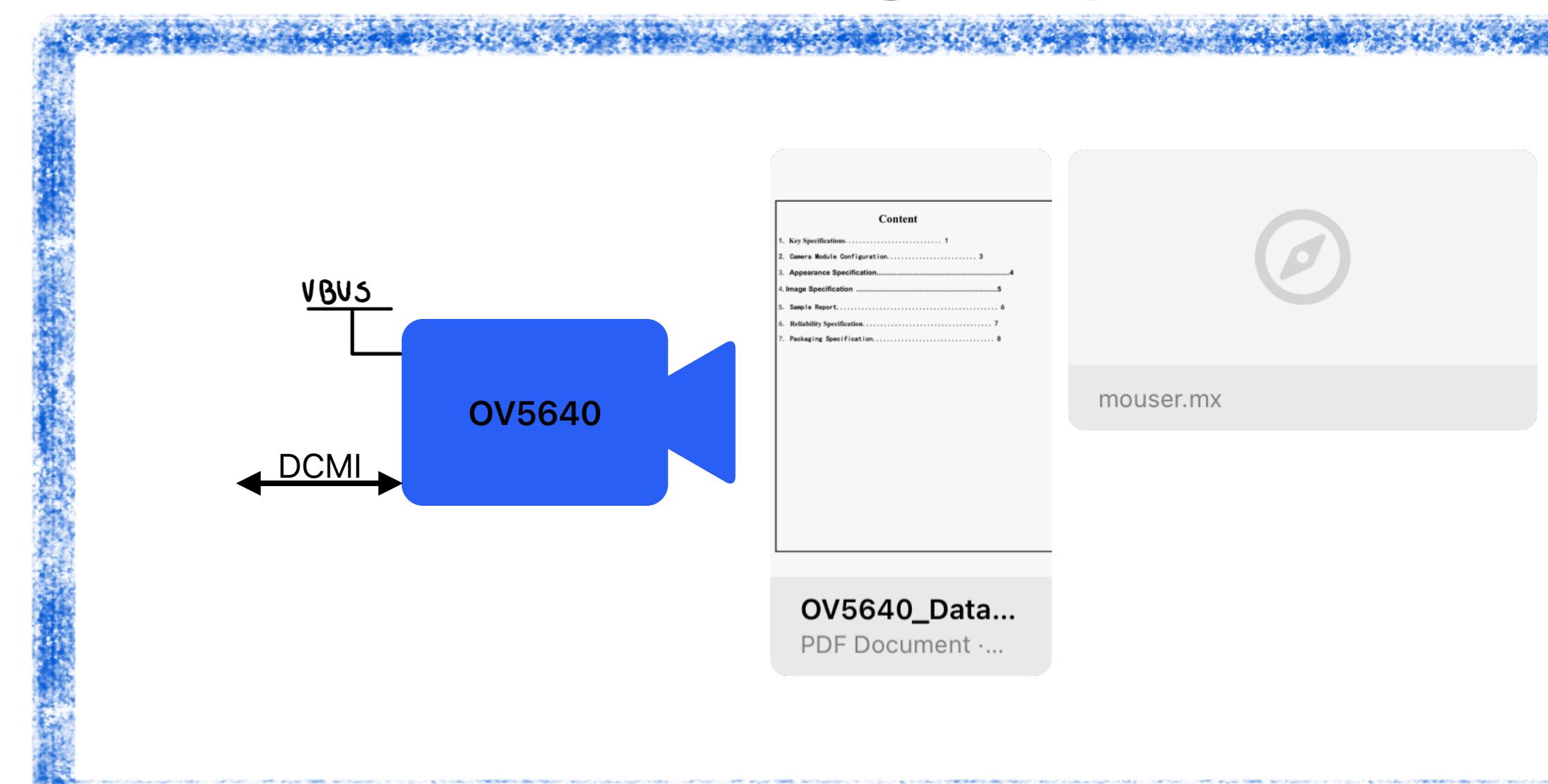
## Sensors



## Motor Control



## Camera



## uSD socket

