ViaDrone VIAH7CBV1-PL

Contents

Part I
Abstract

The ViaDrone VIAH7CBV1-PL is a modular flight controller engineered for seamless compatibility with PX4 and Ardupilot. It provides unparalleled reliability through true sensor redundancy, utilizing a triple IMU configuration with fully isolated power and data ingestion paths. For data storage, it is available in two variants: one featuring built-in EMMC, and another utilizing SD Card storage. The unit ensures accuracy in demanding environments by equipping two of the three IMUs and one of the two barometers with heating and vibration isolation. Housed in a durable aluminum enclosure, the VIAH7CBV1-PL is the perfect choice for larger, more demanding systems, offering compatibility with the Pixhawk Autopilot Bus (PAB) standard.

Part II
Technical Specification

1   Processors & Sensors

- FMU Processor: STM32H753 32 Bit Arm® Cortex®-M7, 480MHz, 2MB flash memory, 1MB RAM

- On-board sensors (specific models are subject to change based on product lifecycle and availability)

   - **IMU1** (isolated) ICM-42688-P
   - **IMU2** (isolated) ICM-42670-P
   - **IMU3** ICM-42688-P
   - **BARO1** (isolated) ICP-20100
   - **BARO2** ICP-20100
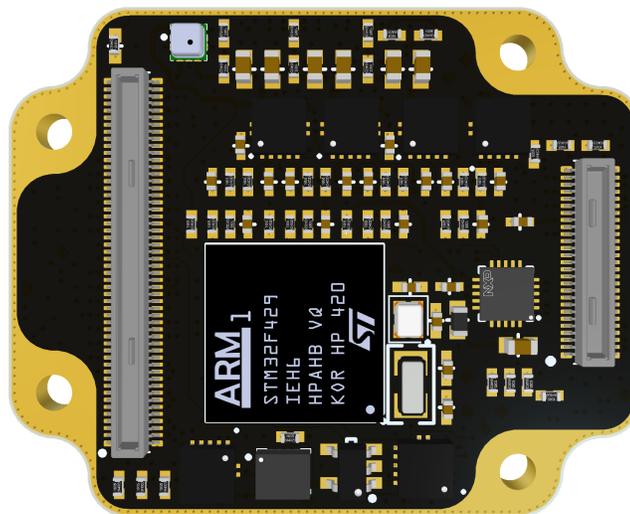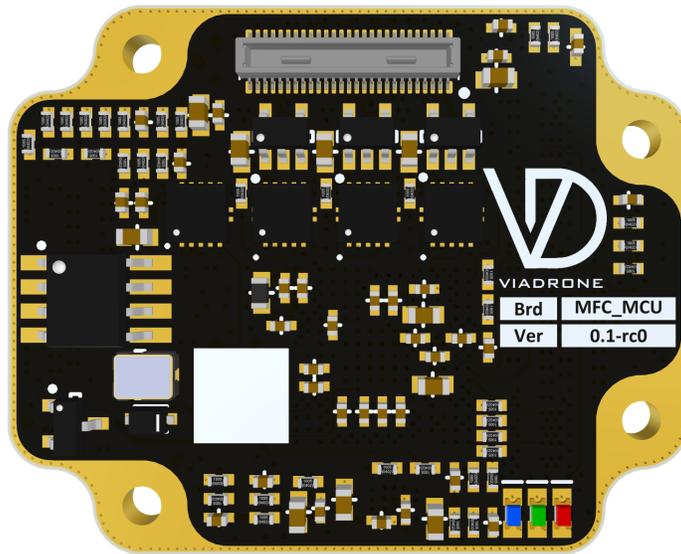
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2   Interfaces

- UART (RTS/CTS): 3

- UART (2 wire): 5

- Debug (10-pos)

- Ethernet: 1x 100-Base T

- USB: USB-C 480Mbit

- FDCAN: 2

- I2C: 3

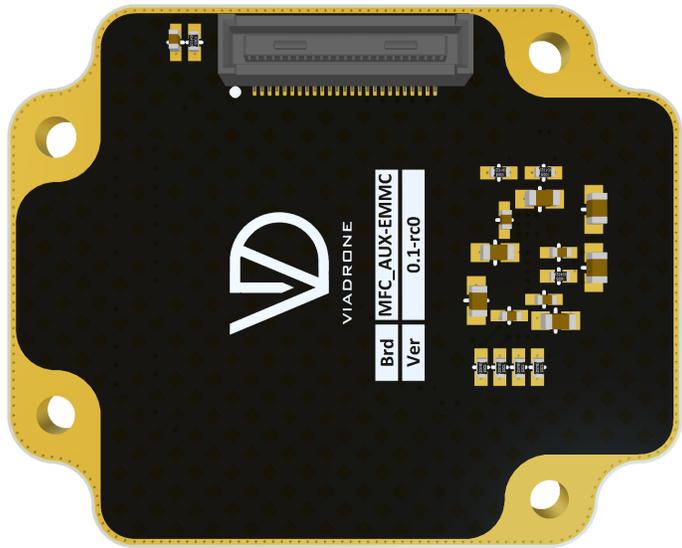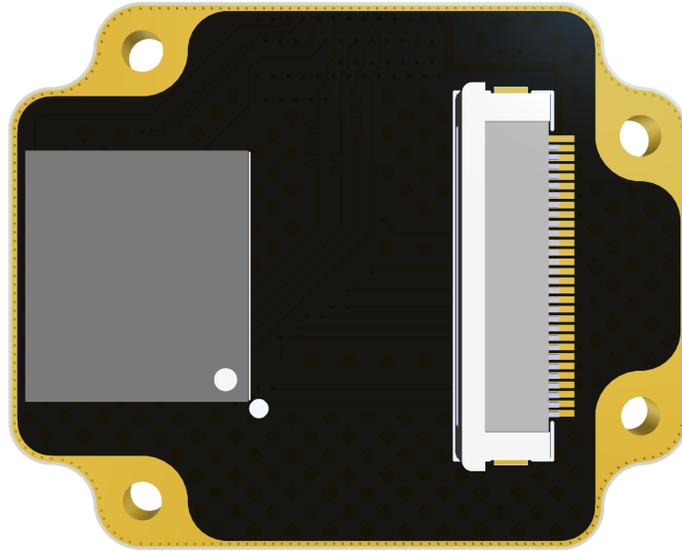- Power input: analog/digital

- PWM out: 8

3   Mechanical data

- PAB mechanical standard

- Outer dimensions: 32x39x22mm
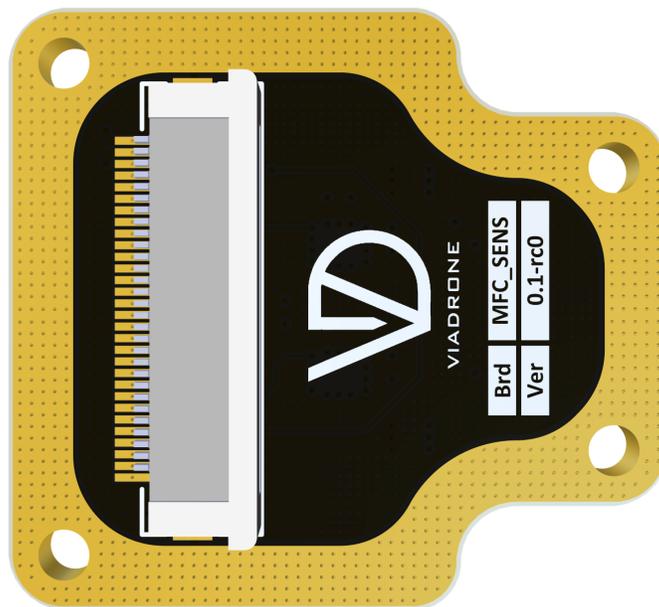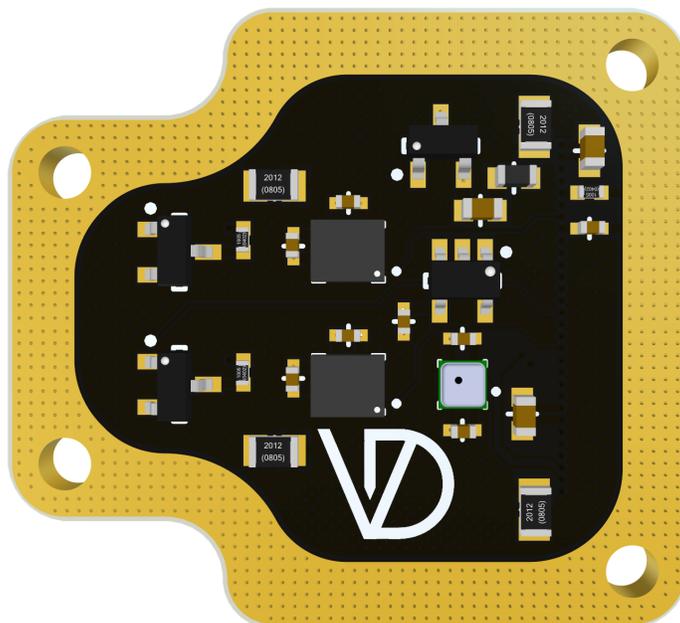
- Weight: 43g

4 Pictures

4.1 MCU

4.2   STORAGE

4.3   SENSORS

END OF SECTION

DS-VIAH7CBV1-PL Rev 01