

FC-001-AP-GPS

High Precision ArduPilot GPS

User Manual



INTRODUCTION

FC-001-AP-GPS is a high-performance, dual-band RTK navigation module engineered for professional-grade applications. Built on the powerful STM32H743 (Cortex-M7) architecture, it integrates a ZED-F9P module, an RM3100 magnetometer, an ICM42688 IMU, and an MS5611 barometer. It offers extensive compatibility across all major GNSS constellations, including GPS, BeiDou, Galileo, GLONASS, and QZSS.

Equipped with dual power inputs (USB and CAN) and a high-gain L1/L5 dual-band antenna, the module delivers exceptional signal sensitivity and system redundancy. Optimized for the ArduPilot ecosystem, it leverages CAN BUS for robust, interference-resistant connectivity.

FEATURES

- High-performance STM32H743 processor (ARM Cortex-M7)
- RTK GPS module : ZED-F9P
- Integrated IMU: ICM42688
- Magnetometer: RM3100
- High-accuracy barometer: MS5611
- Dual power input (CAN and USB)
- Number of PWM I/O: 3
- Number of CAN interface: 1
- Number of Serial supported: 1
- Support Ardupilot
- Support RTK