

FC-001-GPS

GPS Module with Compass

User Manual



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INTRODUCTION

The **FC-001-GPS GPS Module with Compass** uses ublox with the high-performance LIS3MDL digital compass, offering superior magnetic precision and reliable heading data. By housing the compass within the GPS unit, it allows for easy mounting away from motors and ESCs, significantly reducing electromagnetic interference for more stable flight and "Return to Home" accuracy.

It provides an industry-leading -167 dBm navigation sensitivity, allowing the unit to maintain a rock-solid lock even in challenging environments like deep urban canyons or under dense tree canopies.

The module boasts a navigation update rate of up to 25 Hz. This means your flight controller receives position data 25 times per second, ensuring ultra-smooth tracking during high-velocity maneuvers. With a 2.0m CEP position accuracy, you can trust your vehicle to hold its station or follow waypoints with surgical precision.

This module is optimized for both cost-sensitive and high-performance applications, from long-range FPV drones to industrial robotics. It remains compatible with standard flight controller ecosystems (such as ArduPilot and PX4) via the DDC (I2C compliant) interface, making it a seamless upgrade for those moving from older NEO generations to the latest in high-speed, high-sensitivity navigation.

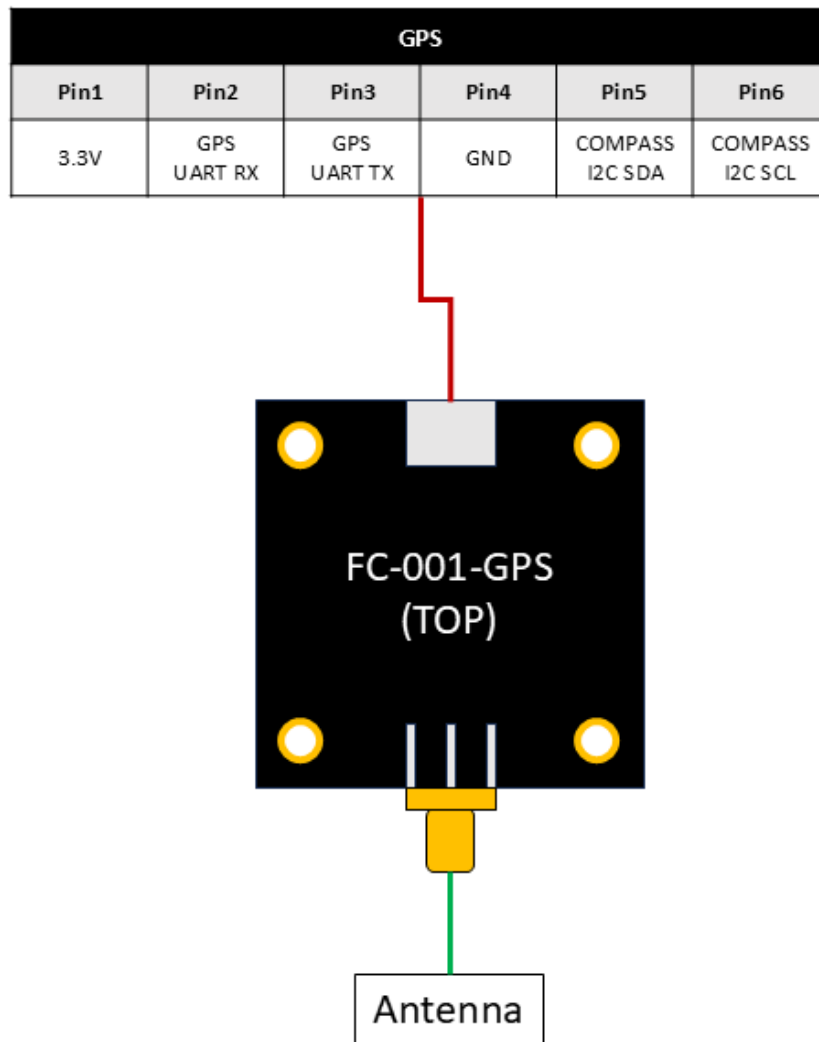
PACKAGE CONTENTS

- 1x FC-001-GPS
- 1x GPS Antenna
- 1x Signal 6-pin cable

FEATURES

- Industry leading -167 dBm navigation sensitivity
- Navigation update rate up to 25 Hz
- Cold starts: 29s
- Position accuracy: 2.0m CEP
- Power and fix indicator LEDs
- LIS3MDL Compass

PIN DESCRIPTION



WARRANTY

The SELLER warrants the **FC-001-GPS GPS Module with Compass** to be free from defects in the material and workmanship for 1 year from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 1 year warranty period, The SELLER, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surges.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables are limited to a 30 day warranty and cable must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. **Also, the technical information contained herein regarding the FC-001-GPS features and specifications is subject to change without further notice.**