

# Ublox NEO 6M GPS Module

## Built-in Compass 5983

**1.GPS and Compass Integration:** This module combines a GPS receiver with a compass (often based on the HMC5983 or similar magnetometer) in one package. The compass provides magnetic field data, which is essential for determining heading or orientation.

**2.u-blox NEO-6M GPS Receiver:** The NEO-6M is a well-known GPS receiver that can acquire data from multiple satellite constellations (GPS, GLONASS, Galileo, BeiDou, etc.) to provide accurate positioning information.

**3.High Accuracy:** This module offers high-precision positioning with support for Real-Time Kinematic (RTK) correction, which can provide centimeter-level accuracy when paired with an RTK base station.

**4.Serial Communication:** It communicates with a host microcontroller or autopilot system (such as

APM or Pixhawk) through a serial interface (typically UART), making it compatible with various platforms.

**5.Configuration Options:** The module can often be configured to output specific NMEA messages or binary data formats to meet the requirements of your application.

**6.Widespread Compatibility:** It is compatible with popular open-source autopilot systems like ArduPilot (used with APM and Pixhawk flight controllers) and can be integrated into various autonomous systems for navigation and waypoint tracking.

**7.Compact Form Factor:** The module is small and lightweight, making it suitable for use in UAVs, drones, robotics, and other applications where size and weight are critical



