

GPS Systems

Drone Dev Kits









FPV Products Support







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M₁₀ GPS

SKU:12040

\$43.99

Shipping calculated at checkout.

CONNECTOR TYPE

Standard

Secondary GPS

For Pix32 & Pixhawk 1/2.4.6/2.4.8

QUANTITY



ADD TO CART

VOLUME DISCOUNT



The M10 GPS uses multi-constellation GNSS powered by u-blox M10 series, a concurrent GNSS receiver which can receive and track multiple GNSS systems. Owing to the multi-band RF front-end architecture all four major GNSS constellations, GPS, Galileo, GLONASS and BeiDou can be received concurrently.

It also comes with the IST8310 compass, tricolored LED indicator, buzzer, and a safety switch. There are 3 different connectors options for different purposes. This module ships with a baud rate of 115200 5Hz.

The high-gain 25 x 25 mm patch antenna provides excellent performance and the omnidirectional antenna radiation pattern increases flexibility for device installation. It features active circuitry for the ceramic patch antenna, rechargeable backup battery for warm starts.

High-Speed Drone GPS Comparison

This **blog post** put Holybro M10, M9N, F9P and Matek M10Q was put to an ultimate test to determine which GPS units could keep pace with a high-speed drone in acro mode while ensuring precision during RTL and autonomous missions.

Features

- Newest Ublox 10th Gen GNSS
- · Fast & Accurate Positioning
- High-gain 25*25*4mm antenna
- IST8310 Compass
- Internal Buzzer, Safety switch
- Ultra Bright UI RGB LED

Specification

| GNSS Receiver | Holybro M10 GPS | Holybro M9N GPS |
|------------------------------|-----------------|-----------------|
| | Ublox M10 | Ublox M9N |
| Number of Concurrent GNSS | Up to 4 GNSS | Up to 4 GNSS |
| | BeiDou | BeiDou |
| | Galileo | Galileo |
| | GLONASS | GLONASS |
| | GPS | GPS |
| | QZSS | QZSS |
| Frequency Band | GPS L1 | GPS L1 |
| | | |

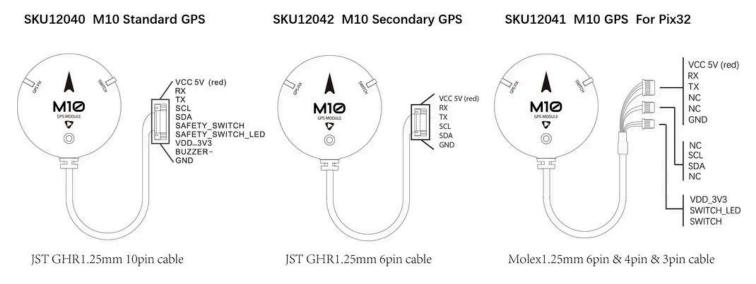
| | Galileo E1 | Galileo E1 | |
|--------------------------|---------------------------------------|---------------------------------------|--|
| | GLONASS L1 | GLONASS L1 | |
| | BeiDou B1 | BeiDou B1 | |
| | SBAS L1 | SBAS L1 | |
| | QZSS L1 | QZSS L1 | |
| Compass | IST8310 | IST8310 | |
| Output Protocol | UBX (U-blox) | UBX (U-blox) | |
| | NMEA | NMEA | |
| Accuracy | 2.0m CEP | 1.5m CEP | |
| Nav. Update Rate | Up to 25 Hz (single GNSS), | Up to 25 Hz (4 concerrent GNSS) | |
| | Up to 10 Hz (4 concurrent GNSS) | | |
| GNSS Augmentation System | EGNOS, GAGAN, MSAS and WAAS | EGNOS, GAGAN, MSAS and WAAS | |
| | QZSS: L1S | QZSS: L1S | |
| Default Baud Rate | 115200 | 115200 | |
| Input Voltage | 4.7-5.2V | 4.7-5.2V | |
| Port Type | JST-GH-10P | JST-GH-10P | |
| Antenna | 25 x 25 x 4 mm ceramic patch antenna | 25 x 25 x 4 mm ceramic patch antenna | |
| Power consumption | Less than 200mA @ 5V | Less than 200mA @ 5V | |
| Operating Temperature | -40~80℃ | -40~80°C | |
| Dimension | φ50 x14.4 mm | φ50 x14.4 mm | |
| Weight | 32g | 32g | |
| Cable Length | 26cm (42cm cable purchase separately) | 26cm (42cm cable purchase separately) | |
| Other | Tri-color LED | Tri-color LED | |

| Onboard Buzzer | Onboard Buzzer |
|--------------------------------|--------------------------------|
| Safety Switch | Safety Switch |
| LNA MAX2659ELT+ RF Amplifier | LNA MAX2659ELT+ RF Amplifier |
| Rechargeable Farah capacitance | Rechargeable Farah capacitance |
| Low noise 3.3V regulator | Low noise 3.3V regulator |

Note

- PX4 1.14, ArduPilot 4.3, INAV 5.0.0, Betaflight 4.3.0 or newer is required.
- The Status LED driver has changed. This LED is support in PX4 1.14, ArduPilot 4.4.0 & later. (More info)

PIN MAP



Note: For Ardupilot User, if you are unable to perform normal compass calibration "compass dance" for any reason, set parameter COMPASS_ORIENT=6 (Yaw270) for proper compass orientation.

Difference between the three cable options

SKU12040 - Holybro M10 GPS (JST GHR1.25mm 10pin cable):

• This option is the most common, it is used on the This connector can be used on Pixhawk Standard Flight Controller 10pin "GPS Module" or "GPS1" input port.

SKU12042 - Holybro M10 Secondary GPS (JST GHR1.25mm 6pin cable):

• This connector can be used on Pixhawk Standard Flight Controller 6pin"UART & I2C" or "GPS2" input port as secondary GPS. This GPS is also compatible with the *Cube* Flight Controller GPS2 Port.

SKU12041 - Holybro M10 GPS for Pix32 & Pixhawk1/2.4.6/2.4.8 (Molex1.25mm 6pin & 4pin &3pin cable):

• These connectors are for "Switch", "GPS", and "I2C" input ports on the Pix32/Pixhawk1/Pixhawk 2.4.6/2.4.8

Reference Link:

- Holybro Documentation
- Ardupilot IST8310 Compass Orientation
- Dimension
- 3D CAD File Downloads

Package Includes:

- 1x M10 GPS Module
- 1x Fixed Carbon Fiber GPS mount

Spare Part & Accessories

• GPS Extended Length Cable



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