



## Meridian M5Plus GNSS Receiver

M5Plus GNSS receiver is an extremely lightweight, full-featured, intelligent GNSS receiver system equipped with an integrated full-frequency antenna and advanced multi-channel RTK engine, built-in radio, and 8GB internal storage, allowing users to attain accurate, reliable solutions.

Its powerful RTK algorithm makes M5Plus easy to get fixed solutions in the most demanding environments, brings you to focus on your surroundings and not the bubble to measure the points that previously could not be measured, making your stake out more efficiently and conveniently than ever before with increased speed, safety and comfort and greatly improving your working efficiency.



### Multi Constellation

M5Plus provides an excellent onboard real-time navigation solution with high accuracy. Multi-satellite signals (GPS, GLONASS, BEIDOU, GALILEO, QZSS, IRNSS, L-Band) are included.



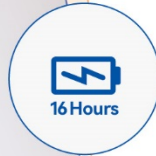
### Powerful IMU Feature

Equipped with 120° calibration-free IMU technology in a small body, extending the M5Plus's application range to locations that traditional RTK systems cannot reach, opening up new horizons for product applications.



### Palm Size

The palm-sized RTK (Real-Time Kinematic) system combines elegance with precision, offering a compact solution for accurate positioning on-the-go.



### Powerful Battery

With 7.4V 7000mah and the quick-charge capability, supports you in working more than 26hours and greatly saves your time.



### Rugged Housing

IP67 waterproof and dustproof design and magnesium-aluminum alloy housing.



# Technical Specification

|                          |                                |                                                                                                                           |
|--------------------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| GNSS Signal <sup>②</sup> | Channel                        | 1408                                                                                                                      |
|                          | BDS                            | B1I, B2I, B3I, B1C, B2a, B2b*                                                                                             |
|                          | GPS                            | L1 C/A, L1C*, L2P(Y), L2C, L5                                                                                             |
|                          | GLONASS                        | L1, L2, L3*                                                                                                               |
|                          | GALILEO                        | E1, E5a, E5b, E6*                                                                                                         |
|                          | QZSS                           | L1, L2, L5, L6*                                                                                                           |
|                          | SBAS                           | L5*                                                                                                                       |
|                          | NavIC(IRNSS)*                  | L1, L2, L5                                                                                                                |
|                          | L-band                         | B2b PPP (Only for the Asian-Pacific Region)                                                                               |
|                          | Data Format                    | CMR, CMR+, RTCM2.X, RTCM3.X                                                                                               |
|                          | Data Output                    | NMEA-0183, RINEX, TXT                                                                                                     |
|                          | Data Updating Rate             | Up to 20Hz                                                                                                                |
|                          | Time to Recapture              | <1s                                                                                                                       |
|                          | Cold Start                     | <40s                                                                                                                      |
| Positioning Performance  | Single Point Positioning (RMS) | <b>Horizontal:</b> 1.5m   <b>Vertical:</b> 3.0m                                                                           |
|                          | DGPS (RMS)                     | <b>Horizontal:</b> 0.4m   <b>Vertical:</b> 0.8m                                                                           |
|                          | Real Time Kinematic (RMS)      | <b>Horizontal:</b> $\pm(8\text{mm}+1\times10^{-6}\cdot D)$<br><b>Vertical:</b> $\pm(15\text{mm}+1\times10^{-6}\cdot D)$   |
|                          | Speed Accuracy (RMS)           | 0.03m/s                                                                                                                   |
|                          | Static Accuracy (RMS)          | <b>Horizontal:</b> $\pm(2.5\text{mm}+0.5\cdot D)$<br><b>Vertical:</b> $\pm(5\text{mm}+0.5\cdot D)$                        |
|                          | Time Accuracy (RMS)            | 20ns                                                                                                                      |
|                          | Speed Accuracy                 | $\geq 0.03\text{m/s}$                                                                                                     |
|                          | Tilt Compensation Accuracy     | $\leq 2\text{cm}$ (Tilt Angle $\leq 60^\circ$ , Up to $120^\circ$ )                                                       |
|                          | IMU Update Frequency           | 200Hz                                                                                                                     |
| Communication            | Bluetooth                      | V2.1+EDR/V4.0 Dual Mode                                                                                                   |
|                          | WiFi                           | 802.11 a/b/g/n/ac                                                                                                         |
|                          | Storage                        | 8GB                                                                                                                       |
|                          | Internal Radio                 | <b>Transmitting power:</b> 2W( $37\pm 1\text{dBm}$ ) 1W( $30\pm 1\text{dBm}$ )<br><b>Frequency:</b> 410~470MHz            |
|                          |                                | <b>Protocol:</b> TRIMTALK, TRIMMK3, SOUTH, TRANSEOT, SATEL<br><b>Air Baud Rate:</b> 9600, 19200                           |
| Battery                  | Specifications                 | 7.4V, 7000mAh lithium-ion Rechargeable Battery                                                                            |
|                          | Operating Time                 | <b>RTK Rover:</b> Up to 26 hours (Typical Power Consumption)<br><b>Static:</b> Up to 30 hours (Typical Power Consumption) |
|                          | Charging                       | Support USB PD 15V/1.5A (Supports Quick Charging Adapter)                                                                 |
| Environment              | Operating Temperature          | -40°C~+85°C                                                                                                               |
|                          | Storage Temperature            | -55°C~+85°C                                                                                                               |
|                          | Anti-seismic                   | 2m Pole Drop Onto Concrete                                                                                                |
|                          | Dust & Waterproof              | IP67                                                                                                                      |
|                          | I/O Interface                  | 1× USB type-C port; 1× SMA antenna port; 1× 5 pin LEMO port                                                               |
| Physical                 | Dimensions                     | 119mm×119mm×76mm                                                                                                          |
|                          | Weight                         | 599g                                                                                                                      |
|                          | Material                       | Magnesium-alloy Casing + ABS/PC Plastic Top Cover                                                                         |

1. \*This information is for reference only. The product parameters are subject to changes due to product upgrading without notice.

2. \*BDS B2b, GALILEO E6, QZSS L6, IRNSS L5 will be provided through future product upgrade.



Website: [www.meridiangnss.com](http://www.meridiangnss.com)

Manufacture: **Guangzhou Meridian GNSS CO., LTD.**

Address: Building 3, No. 6, Hanqi Avenue, Dalong Street, Panyu District, Guangzhou, PRC.

Email: meridiangnssvip@gmail.com Tel: +8613229468806