

# Technical Specification

GNSS Feature	Specification	
GNSS Signal <sup>2</sup>	Channels	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*
	IRNSS	L5*
	SABS	L1, L2, L5
	L-Band	B2b PPP (Only for the Asian-Pacific region)
Positioning Performance	High-precision static GNSS Surveying	Horizontal: 2.5mm + 0.1ppm RMS   Vertical: 3.5mm + 0.4ppm RMS
	Static and Fast Static	Horizontal: 2.5mm + 0.5ppm RMS   Vertical: 5mm + 0.5ppm RMS
	Post Processing Kinematic (PPK / Stop & Go)	Horizontal: 8mm + 1ppm RMS   Vertical: 15mm + 1ppm RMS Initialization time: Typically 10 min for base and 5 min for rover Initialization reliability: Typically >99.9%
	Code Differential GNSS Positioning	Horizontal: ±0.25m+1ppm RMS Vertical: ±0.5m+1ppm RMS   SBAS: 0.5m (H), 0.85m (V)
	Real Time Kinematic (RTK)	Horizontal: 8mm+1ppm RMS   Vertical: 15mm+1ppm RMS Initialization time: Typically <10s   Initialization reliability: Typically > 99.9%
	Time to first Fix M-Fix <sup>1</sup>	Cold start: < 45 s   Hot start: < 30 s   Signal re-acquisition: < 2 s
	Tilt Survey Performance	Horizontal: RTK+10mm / minute RMS   Vertical: RTK+20mm / minute RMS Additional horizontal pole-tilt uncertainty typically less than 8 mm +0.7 mm / °tilt (2.5cm accuracy in the inclination of 60°)
Communication	Communication	Bluetooth: 4.2 / 2.1+EDR, 2.4GHz Wi-Fi: frequency 2.4GHz, Supports 802.11 b / g / n Frequency: 410-470MHz   Channel: 116 (16 scalable) Transmitting power: 0.5W / 1W / 2W adjustable
	Internal UHF Radio	Supports multi-communication protocols: TRIMTALK450ST, CHC, HI-TARGET, TRIMMARK III, TRANSEOT, SOUTH 9600, SOUTH 19200
Physical	Internal battery	Internal 7.4V / 6800mAh lithium-ion rechargeable battery RTK Rover (Network) for 12 hours   Static: up to 15 hours
	External power	Power consumption: 4.2W   Dimensions (W×H): 132mm×67mm Charging: using standard smartphone chargers or external power banks Weight: ≤0.8kg (includes battery)   Data storage: 8GB ROM internal storage
Control Panel	LED Lamp	Satellite, Signal, Power
	Physical button	1
Environment	Water / Dustproof	IP68
	Shock and vibration	Designed to survive a 2m natural fall onto concrete
	Humidity	100%, condensing
	Operation temperature	-30°C ~ +70°C
	Storage temperature	-40°C ~ +80°C
I / O Interface	1 × USB port, Type C	
	1 × SMA antenna connector	
Data Formats	Output rate	1Hz-20Hz
	Static data format	GNS, Rinex
	Network model	VRS, FKP, MAC; supports NTRIP protocol
	CMR& RTCM	CMR, RTCM 2.x, RTCM 3.0, RTCM 3.2
	Navigation outputs ASCII	NMEA-0183

1.\*Description and Specifications are subject to change without notice.  
2.\*BDS B2b, GALILEO E6, QZSS L6, IRNSS L5 will be provided through future product upgrade.



# M6 GNSS RECEIVER



To be the Best  
GNSS Solution Provider

CE FCC IP68

# Meridian M6

## GNSS RTK

Meridian M6 GNSS RTK receiver is the ultimate solution for high-precision positioning in any environment, brings superior performance and high efficiency to support your fieldwork with reliable solutions. With its advanced technology, the M6 delivers centimeter-level accuracy and reliability, even in challenging conditions.

Multiple constellation and frequency tracking, powerful RTK engine, calibration-free tilt compensation IMU technology makes M6 receiver easy to get fixed solution in 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.

### KEY FEATURES

- Full-constellation Tracking
- Advanced RTK Engine
- Web UI
- Built-in Radio
- NFC
- Compatibility With Third-party Software



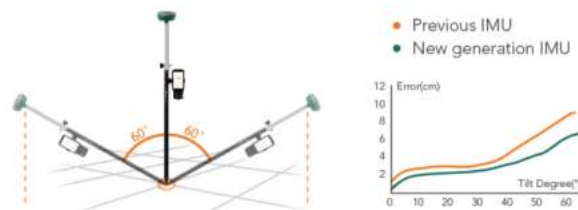
### More Portability

The Meridian M6 GNSS RTK Receiver offers reliable solutions for fieldwork with superior performance and high efficiency. Its advanced RTK engine and new-generation IMU result in a 25% improvement in performance, even in the most challenging environments. This makes the Meridian M6 a dependable tool for enhancing productivity.



### Greater Flexibility

With its self-developed built-in IMU and core algorithm, it can deliver precise and dependable outcomes, thus enhancing the efficiency of fieldwork.



### User-friendly WebUI

The M6 has a user-friendly interface that is easy to navigate, allowing users to quickly access and modify settings.



### Higher Accuracy and Precision

Using the High-Performance Patch Antenna improves the ability to track satellites at low elevation angles while maintaining high gain for higher elevation satellites.



## HDL460A External Radio

### KEY FEATURES

- HD OLED display.
- The longest communication distance with the comparison products in the industry.
- Real-time voltage detection.
- Compatible with major radio protocols in the industry.
- The adaptive frequency can adapt the default frequency of different manufactures 10 W, 35 W power can be set up.
- Industrial-grade processing platform.

