

📍 Technical Specification

GNSS Feature	Specification	
GNSS Signal <sup>②</sup>	Channels	1408
	GPS	L1C/A, L1C, L2P(Y), L2C, L5
	BDS	L1, L2, L3*
	GLONASS	B1I, B2I, B3I, B1C, B2a, B2b*
	GALILEO	E1, E5a, E5b, E6*
	IRNSS	L1, L2, L5, L6*
	QZSS	L1, L2, L5
	SABS	L5
Positioning Performance	L-Band	B2b PPP (Only for the Asian-Pacific Region)
	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 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	Cold start: < 45 s   Hot start: < 30 s   Signal re-acquisition: < 2 s
	Tilt Survey Performance	≤2cm within 60°, Up to 120°
Communication	Communication	Bluetooth: 4.2 / 2.1+EDR, 2.4GHz Wi-Fi: frequency 2.4GHz, Supports 802.11 b / g / n
	Internal UHF Radio	Frequency: 410-470MHz
		Transmitting power: 1W / 2W / 5W adjustable Protocols: TRIMTALK9600, TRANSEOT, SOUTH 9600, SOUTH 19200
Physical	Removable Battery	8.4V / 6800mAh lithium-ion rechargeable battery RTK Rover (Network) for 10 hours*2   Static: up to 13 hours*2
Control Panel	Display	1.54 inch OLED Display
	LED Lamp	Satellite, Signal, Power
	Physical Button	3
Environment	Water / Dustproof	IP68
	Shock and Vibration	Designed to survive a 2m natural fall onto concrete
	Humidity	100%, condensing
	Operation Temperature	-45°C~+70°C
I / O Interface	Port	1 × Micro USB port, 1 × Type C 1×LEMO port( 5 Pin)
		1 ×SIM card slot , 1 ×Type C port 1 ×UHF port
Data Formats	Output Rate	Up to 20Hz
	Static Data Format	Dat
	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.



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- 📍 5W Data Transmission
- 📍 Wi-Fi
- 📍 4G Connectivity
- 📍 Removable Battery
- 📍 Bluetooth

# M7

## GNSS RECEIVER

To be the Best  
GNSS Solution Provider

CE FCC IP68





# M7 High Performance GNSS Receiver

The Meridian M7 features a new-generation RTK engine and supports tilt measurement, allowing for high-precision surveying in complex environments. It also has built-in 4G connectivity, Bluetooth, Wi-Fi, and a 5W data transmission radio, enabling high-speed data transfer and User-friendly WebUI, which improves efficiency and convenience.

The M7 has a removable battery and a rugged design, making it suitable for outdoor and harsh environments. Equipped with 5 watt built-in radio and 32GB internal storage, allowing users to attain accurate, reliable solutions, makes M7 the perfect base station receiver.



## Longer Working Distance

Equipping the Meridian M7 with a 5W internal radio offers numerous benefits, including up to 18km range, increased flexibility and improved safety.



## Longer Working Time

Offers a longer working time of up to 20 hours with 2 batteries, allowing users to work for an entire day.

## Highly Integrated Four-in-one Antenna



The highly integrated four-in-one antenna on the M7 provides several advantages, including saving space, improving performance and reliability, and reducing the failure rate during use, making M7 more portable and easier to handle, increasing the efficiency and accuracy of measurements.



Save Space



Low Failure Rate



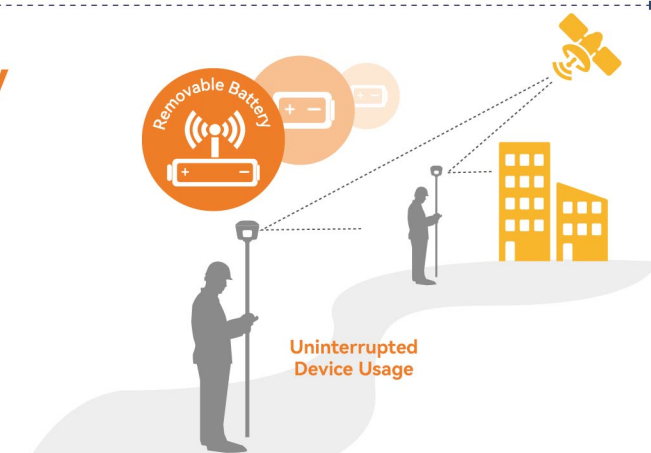
Reliability



More Portable

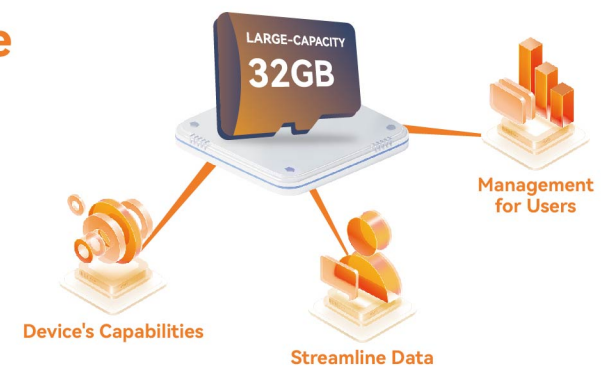
## Powerful removable battery

Removable batteries provide flexibility, allowing easy replacement and uninterrupted device usage, enhancing convenience for users. Removable batteries enhance device usability and offer a cost-effective solution for prolonged use.



## Large-capacity Data Storage

Up to 32GB internal memory is a valuable feature that can enhance the device's capabilities and streamline data management for users.



## Enhanced Tilt IMU

Equipped with calibration-free IMU, support up to 60° tilt angle within 2cm accuracy, and up to 120°, allows for quick and accurate measurements without leveling the pole. Concentrate on where the pole tip needs to go, which is especially useful during a stakeout.

