Meridian M10 GNSS Receiver

M10 GNSS receiver is a full-featured, intelligent GNSS receiver system equipped with an integrated full-frequency antenna and an advanced multi-channel RTK engine, featuring a built-in radio and 8GB internal storage, allowing users to attain accurate and reliable solutions.

Its powerful RTK algorithm makes M10 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

M10 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 M10 application range to locations that traditional RTK systems cannot reach, opening up new horizons for product applications.



Longer Working Distance

The upward-facing radio antenna allows 30% longer working distance, ensures superior satellite acquisition and a stable signal lock.

Powerful Battery

26 Hours

With 7.2V 6600mah and the quick-charge capability, supports you in working more than 26hours and greatly saves your time.

Rugged Housing

IP68 waterproof and dustproof design and magnesium-aluminum alloy housing.

Technical Specification

GNSS Signal[2]	Channel	1408
	BDS	B1I, B2I, B3I, B1C, B2a, B2b*
	GPS	L1C/A, L1C, L2P(Y), L2C, L5
	GLONASS	L1, L2, L3*
	GALILEO	E1, E5a, E5b, E6*
	QZSS	L1C/A, L1C, L2C, L5, L6*
	SBAS	L1, L5*
	NavIC(IRNSS)*	L5
	L-band	B2b PPP (Only for the Asian-Pacific Region) & HAS*
	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)	**Horizontal:** 1.5m | **Vertical:** 3.0m
	DGPS (RMS)	**Horizontal:** 0.4m | **Vertical:** 0.8m
	Real Time Kinematic (RMS)	**Horizontal:** ±(8mm+1×10^{-6}·D)
		Vertical: ±(15mm+1×10^{-6}·D)
	Speed Accuracy (RMS)	0.03m/s
	Static Accuracy (RMS)	**Horizontal:** ± (2.5mm+0.5^{-6}·D)
		Vertical: ± (5mm+0.5^{-6}·D)
	Time Accuracy (RMS)	20ns
	Speed Accuracy	≥0.03m/s
	Tilt Compensation Accuracy	≤2cm(Tilt Angle≤60°, Up to 120°)
	IMU Update Frequency	200Hz
Communication	Bluetooth	V5.2 Dual Mode. 2.4GHz@+5dBm
	Storage	8GB
	Internal Radio	**Transmitting power:** 1 W (27 dBm ±1.5 dB) or 2 W (32 dBm ±1.5 dB)
		Frequency: 410~470MHz. **Channel Spacing:** 25kHz
		Operation: Data Only, Antenna Impedance 50 Ohm
		Protocol: SOUTH, TRIMTALK 450S, TRIMMK III, TRANSEOT, SATEL, MERIDIANLINK
		Air Baud Rate: 9600, 19200, 11000
Battery	Specifications	7.2V, 6600mAh lithium-ion Rechargeable Battery
	Operating Time	**RTK Rover:** Up to 26 hours (Typical Power Consumption)
		Static: 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	IP68
	I/O Interface	1× USB type-C port; 1 × TNC antenna port; 1 × 5 pin LEMO port
Physical	Dimensions	133mm×133mm×84.5mm
	Weight	850g
	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.

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