



M20Lite GNSS RTK

To be the Best
GNSS Solution Provider

CE FCC IP68

M20Lite INNOVATIVE HIGH PRECISION GNSS RTK



Meridian M20Lite GNSS RTK is an innovative solution that combines advanced technology with IMU, and 4G integration. It is calibration-free, significantly boosting operational efficiency. **The compact and lightweight design makes M20Lite a feasible and portable choice for engineering personnel in surveying and improving positional accuracy.**

Longer Working Time

Offers a longer working time of up to 26 hours, allowing users to work for an entire day, also ensures that data is saved safely and securely without the risk of losing important information due to a dead battery.



Calibration-Free Solution

Highly equipped with 120° calibration-free IMU technology in a small body, M20Lite offers stability and high precision without the need for device calibration, extending the M20Lite's application range to locations that traditional RTK systems cannot reach, opening up new horizons for product applications.



Longer Working Distance

Equipping the MeridianLink protocol internal radio offers 15km working range and increases flexibility. By eliminating the need for an external radio, the M20Lite becomes more lightweight, less complex, and more portable, which can lead to increased efficiency and convenience in the field.



Full Constellations

Supports BDS, GPS, GLONASS, Galileo, QZSS, and SBAS. Its 1408 channels offer comprehensive GNSS signal tracking capabilities.



Technical Specification

System	System	Linux	
GNSS Signal [®]	Channel	1408	
	BDS	B1I, B2I, B3I, B1C, B2a, B2b*	
	GPS	L1CA, L1C, L2P(Y), L2C, L5	
	GLONASS	L1, L2, L3*	
	GALILEO	E1, E5a, E5b, E6*	
	QZSS	L1CA, L1C, L2C, L5, L6*	
	SBAS	L1, L5*	
	NavIC(IRNSS)*	L5	
	L-band	B2b PPP (Only for the 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: 3.0mm	
	DGPS (RMS)	Horizontal: 0.4m Vertical: 0.8mm	
	Real-Time Kinematic (RMS)	Horizontal: ±(8mm+1x10 ⁻⁶ -D)	
	Speed Accuracy (RMS)	Vertical: ±(15mm+1x10 ⁻⁶ -D)	
	Static Accuracy (RMS)	0.03m/s	
	Time Accuracy (RMS)	Horizontal: ±(2.5mm+0.5-6-D)	
	Speed Accuracy	Vertical: ±(5mm+0.5-6-D)	
	Tilt Compensation Accuracy	±20ns	
	IMU Sampling Frequency	≥0.03m/s	
	Bluetooth	≤2cm(Tilt Angle≤60°, Up to 120°)	
Communication	Bluetooth	200Hz	
	WiFi	V5.2 Dual Mode 2.4GHz@+5dBm	
	Cellular	IEEE 802.11b/g/n	
		LTE FDD: B1/3/5/7/8/20	
	Storage	LTE TDD: B38/40/41	
		UMTS/HSPA+B1/8	
	Internal Radio	GSM/GPRS/EDGE:900/1800 MHz	
		Up to 64GB	
	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)
Environment	Charging	Support USB PD 15V/2A (Supports Quick Charging Adapter)	
	Operating Temperature	-40°C~+85°C	
	Storage Temperature	-55°C~+85°C	
	Anti-seismic	2m Pole Drop Onto Concrete	
Physical	Dust & Waterproof	IP68	
	I/O Interface	1x USB type-C Port; 1 x SMA antenna Port; 1x SIM Card Slot; 1 x 5pin LEMO Port	
	Dimensions	119mm×119mm×76mm	
	Weight	662g	

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.



Meridian

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