



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.**



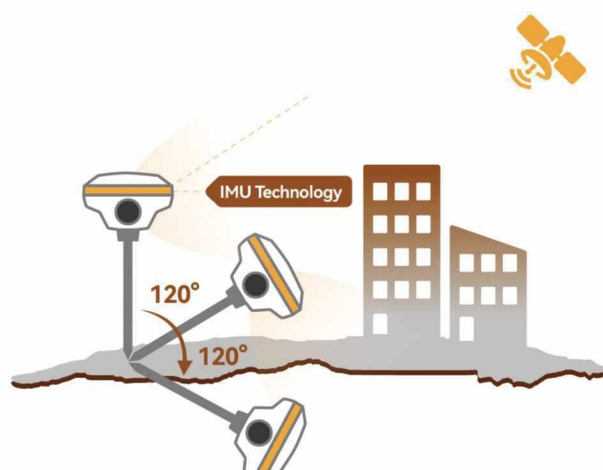
Longer Working Time

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	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
Positioning Performance	Time to Recapture	<1s
	Cold Start	<40s
	Single Point Positioning (RMS)	Horizontal: 1.5m Vertical: 3.0mm
	DGPS (RMS)	Horizontal: 0.4m Vertical: 0.8mm
	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°)
Communication	IMU Update Frequency	200Hz
	Bluetooth	V5.2 Dual Mode 2.4GHz @ max 5dBm
	WiFi	IEEE 802.11b/g/n @ max 17dBm
	Cellular	LTE FDD: B1/3/5/7/8/20 LTE TDD: B38/40/41 Power max=23dBm
	Storage	Only single carrier mode is support Up to 64GB
Battery	Internal Radio	Transmitting Power: 2w (33 dBm) Frequency: 410~470MHz, Channel Spacing: 12.5kHz Protocol: SOUTH, TRIMTALK 450S, TRIMMK III, TRANSEOT, SATEL, MERIDIANLINK
	Specifications	Air Baud Rate: 9600, 11000, 19200
	Operating Time	7.2V 6600mAh lithium-ion Rechargeable Battery
	Charging	RTK Rover: Up to 26 hours (Typical Power Consumption) Static: Up to 30 hours (Typical Power Consumption) Support USB PD 15V/2A (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
Physical	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.



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