

Meridian

ML2 Precision

Laser GNSS RTK

Accurate Anytime & Anywhere

Meridian ML2 Precision Laser GNSS RTK is an innovative product that combines advanced laser technology with full constellation GNSS, IMU, and 4G integration. It is calibration-free, significantly boosting operational efficiency and laser measuring makes the rodless survey improve efficiency and reduce risk factors. This cutting-edge solution revolutionizes the way precision positioning and navigation are accomplished.



Latest Laser Technology

Laser technology offers unparalleled advantages in precision positioning and makes surveying work rodless and Easier. Combining cutting-edge laser technology with full constellation GNSS, IMU, and 4G integration, delivers calibration-free accuracy, significantly enhancing work efficiency and reducing potential risks.



Powerful IMU Feature

Equipped with 120° calibration-free IMU technology in a small body, complements the laser's outstanding performance, extending the ML2's application range to locations that traditional RTK systems cannot reach, opening up new horizons for product applications.



Calibration-Free Solution

Highly integrated with laser and GNSS-IMU algorithms, our solution offers stability and high precision without the need for device calibration, enhancing customer satisfaction but also boosts operational efficiency.



Full Constellations and Multi-frequency

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



Rugged Design

The ML2 is specifically designed to function effectively in challenging environments and with IP67 waterproof and dustproof.



Compact and Portable Design Easy to Carry

- It has excellent heat dispersion properties and weighs less than 270g, making it easy to carry.
- ML2 is incredibly flexible and can be carried in an armband bag, shirt pocket, or attached to a pole using a pouch.
- Provides users with multiple wearable modes, allowing them to choose the mode that best suits their needs and makes their job easier.



Technical Specification

GNSS Signal	Channels	1408
	GPS	L1C/A, L1C, L2P(Y), L2C, L5
	GLONASS	L1, L2, L3*
	BDS	B1I, B2I, B3I, B1C, B2a, B2b*
	GALILEO	E1, E5a, E5b, E6*
	QZSS	L1, L2, L5, L6*
	SBAS	L1, L2, L5
	NavIC(IRNSS)*	L5
	L-Band	B2b PPP (Only for the Asian-Pacific Region)
	Data Format	CMR, CMR+, RTCM2.X, RTCM3.X
Positioning Performance	Single Point Positioning (RMS)	Horizontal: 1.5m Vertical: 2.5m
	DGPS (RMS)	Horizontal: 0.4m Vertical: 0.8m
	Real Time Kinematic (RMS)	Horizontal: $\pm(8\text{mm}+1\times 10^{-6}\cdot D)$ Vertical: $\pm(15\text{mm}+1\times 10^{-6}\cdot D)$
	Laser Accuracy (RMS)	$\leq \pm(1\text{cm}+0.4\text{cm}/\text{m})$
	Speed Accuracy	$\geq 0.03\text{m}/\text{s}$
	Tilt Compensation Accuracy	$\leq 1.5\text{cm}$ (Tilt Angle $\leq 30^\circ$, Up to 120°)
	IMU Update Frequency	200Hz
Communication	Bluetooth	BluetoothV4.1
	Cellular(4G)	LTE FDD: B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28
		LTE TDD: B38/39/40/41
		WCDMA: B1/2/4/5/6/8/19
		GSM: B2/3/5/8
	Indicator	Power Indicator x1
		Bluetooth Indicator x1
Differential Data Indicator x1		
Satellite Indicator x1		
Battery	Specifications	7000 mAh lithium-ion Rechargeable Battery
	Operating Times	RTK Rover: Up to 12 hours (Typical Power Consumption)
Environment	Operating Temperature	-20°C~+75°C
	Storage Temperature	-40°C~+85°C
	Anti-seismic	1.6m Pole Drop Onto Concrete
	Dust & Waterproof	IP67
	Humidity	95% No Condensation
Physical	I/O Interface	Type-C& Power Button
	Dimensions	133.5mm×63mm×56mm
	Weight	$\leq 270\text{g}$



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