

Meridian M25 Specification		
GNSS Signal	Channel	I408
	BDS	B1I, B2I, B3I, B1C, B2a, B2b*
	GPS	L1 C/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, DAT
	Data Updating Rate	Up to 20Hz
	Time to Recapture	<1s
Positioning Performance	Cold Start	<40s
	Single Point Positioning (RMS)	Horizontal: 1.5m Vertical: 3.0m
	DGPS (RMS)	Horizontal: 0.4m Vertical: 0.8m
	Real-Time Kinematic (RMS)	Horizontal: $\pm(8\text{mm}+1\times10^{-6}\text{D})$ Vertical: $\pm(15\text{mm}+1\times10^{-6}\text{D})$
	Speed Accuracy (RMS)	0.03m/s
	Static Accuracy (RMS)	Horizontal: $\pm(2.5\text{mm}+0.5^{-6}\text{D})$ Vertical: $\pm(5\text{mm}+0.5^{-6}\text{D})$
	Time Accuracy (RMS)	20ns
	Speed Accuracy	$\geq 0.03\text{m/s}$
	Tilt Compensation Accuracy	$\leq 2\text{cm}$ (Tilt Angle $\leq 60^\circ$, Up to 120°)
	IMU Update Frequency	200Hz
Communication	Laser Accuracy (RMS)	Horizontal: $\pm(8\text{mm}+3\text{mm/m})$ Vertical: $\pm(15\text{mm}+3\text{mm/m})$ Supports 120-meter laser range with high-brightness laser technology
	Bluetooth	SPP3.0+BLE5.0 @ Power=10mW
	WiFi	802.11 a/b/g/n/ac @ Power max (EIRP)=17dBm LTE FDD: B1/3/5/7/8/28 LTE TDD: 40/41 Power max=23dBm Only single carrier mode is support
	Cellular	32GB
	Storage	Transmitting Power:2W(33 $\pm$ 1dBm) 1W(30 $\pm$ 1dBm) Frequency: 410~470MHz, Channel Spacing: 12.5/25kHz Protocol: SOUTH19200, SOUTH9600,Trintalk9600,TRANSEOT9600, HITARGEY9600, HITARGET19200, SATEL, MeridianLink optional Data Only, Antenna Impedance 50Ohm
	Internal Radio	7.4V, 7000mAh Lithium-ion Rechargeable Battery
	Specifications	Laser RTK Rover: Up to 22 hours (Typical Power Consumption) Static: Up to 40 hours (Typical Power Consumption)
Battery	Operating Time	Support USB PD 15V/2A (Supports Quick Charging Adapter)
	Charging	
Environment	Operating Temperature	-20°C~+85°C
	Storage Temperature	-55°C~+85°C
	Anti-seismic	2m Pole Drop Onto Concrete
	Dust & Waterproof	IP67
Physical	AR Camera	1200 MegaPixel, large viewing angle, supports live view stakeout
	Laser Assisted Camera	1200 MegaPixel, large viewing angle, supports live view stakeout
	I/O Interface	1 $\times$ USB type-C port; 1 $\times$ TNC antenna port; 1 $\times$ SIM cardslot; 1 $\times$ 5 pin LEMO port
	Dimensions	supports laser aiming and live view stakeout
	Weight	$\leq 749\text{g}$

*All specifications are subject to change without notice.

(1) Compliant, GLONASS L3, Galileo E6, Galileo E6 High Accuracy Service (HAS), BDS B2b and SBAS L5 will be provided through future firmware upgrade.

(2) Accuracy and reliability are determined under open sky, free of multipaths, optimal GNSS geometry and atmospheric condition. PPP accuracy is subject to the region, environment, and convergence time. High-precision static requires a minimum of 24 hours of long-term observation and precise ephemeris.



Website: www.meridiangnss.com
Manufacture: **Guangzhou Meridian GNSS CO., LTD.**
Address: Building 3, No. 6, Hanqi Avenue, Dalong Street, Panyu District, Guangzhou, PRC.
Email: vincentliu@meridiangnss.com Tel: +86 15241043026



M25

GNSS Receiver

To be the Best
GNSS Solution Provider

CE FCC IP67

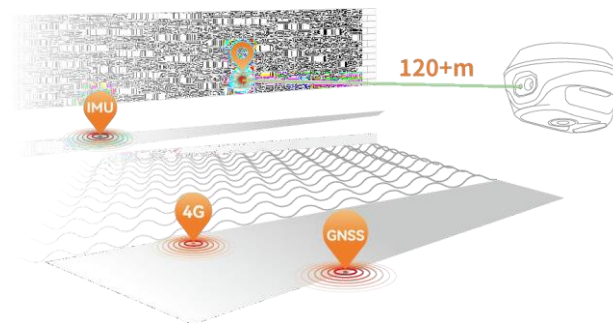
M25 High Precision Laser GNSS RTK

Meridian M25 GNSS RTK is an innovative solution that combines advanced laser technology with Camera, 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. The M20L laser receiver provides a new way to work in challenging & impossible scenarios with high accuracy, including riverine stake-out, bridge pile surveying, elevation surveying, municipal surveying, and outdoor & indoor combination surveying.



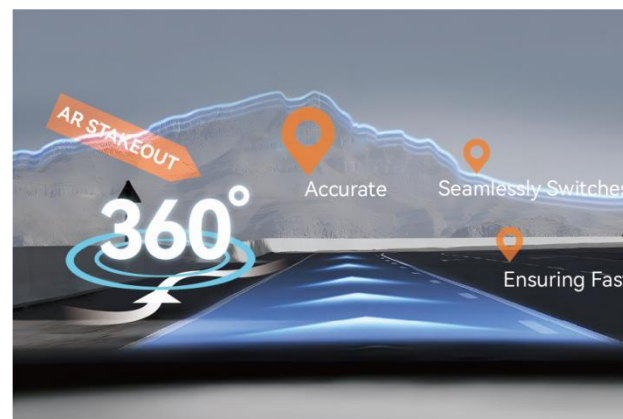
Latest Laser Technology

Laser technology offers unparalleled advantages in precision positioning and makes surveying work rodless and easier. Combining cutting-edge 120m ultra-bright laser technology with full constellation GNSS, IMU, and 4G integration delivers calibration-free accuracy, significantly enhancing work efficiency and reducing potential risks.



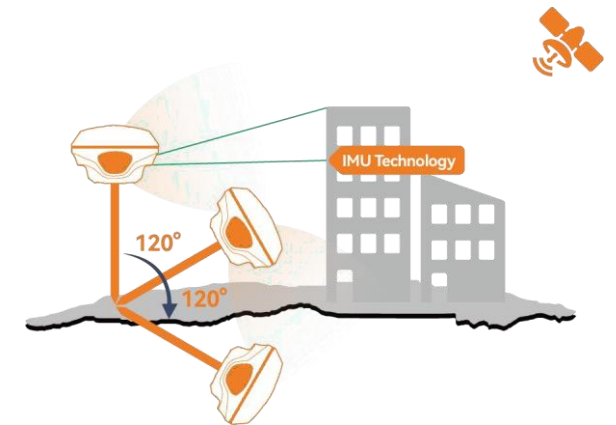
AR Stakeout

Visual positioning eases point finding by overlaying design files onto real scenes, enhancing stakeout efficiency. A high-performance HD camera achieves high accuracy with precise signal tracking. The 360-degree AR stakeout seamlessly switches between the handheld controller and rover, ensuring fast and accurate stakeout experiences.



Calibration-Free Solution

Equipped with laser & 120° calibration-free IMU technology in a small body, it complements the laser's outstanding performance, extending the M25 application range to locations that traditional RTK systems cannot reach, opening up new horizons for product applications, enhancing customer satisfaction and boosting operational efficiency.



Longer Working Distance

Equipped the MeridianLink protocol internal radio offers 15km working range and increases flexibility. By eliminating the need for an external radio, the M25 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.

