CanMap
Geomatics Solutions

Surveys made Affordable

GNSS Systems

CM25+

CM25+

Good things come in small packages

CM25+ GNSS RTK Receiver brings superior performance and high efficiency to support your fieldwork with reliable solutions. The implementation of the advanced RTK engine and new-generation IMU guarantees a 25% performance improvement even in the most demanding environments. You can count on the CanMap CM25+ for increased productivity.

KEY FEATURES

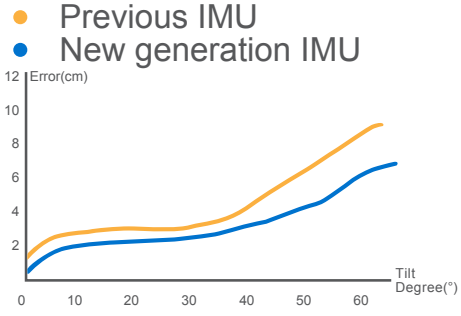
- Advanced RTK Engine
- Full-Constellation Tracking
- Web UI
- Built-in Radio
- NFC — Near Field Communication
- Calibration free tilt survey up to 70°

Greater Portability

Equipped with an ultra-light EPP material instrument case that is shock and impact resistant and a centering rod that can be contracted to 1.25 m, making it durable and portable in the fieldwork.

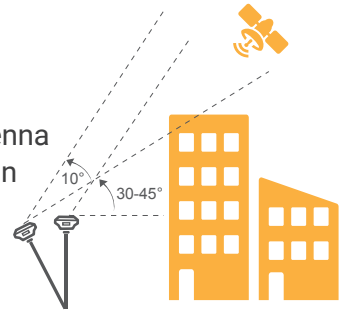
Greater Flexibility

Exploiting the 9-axis IMU and the updated core algorithm, guarantees increased performance and efficiency in the field.



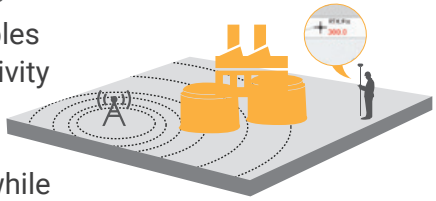
Higher Accuracy and Precision

Equipped with a high performance Patch antenna the CM25+ low elevation tracking is enhanced while maintaining the high gain for tracking higher elevation satellites.



Increased Stability

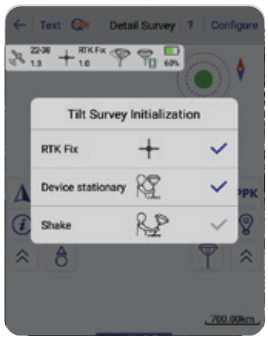
CanMap Hi-Fix enables continuous connectivity and quality results even if you lose the signal while using the RTK base station or VRS network.



HI-SURVEY ROAD

Survey Data Collection Software

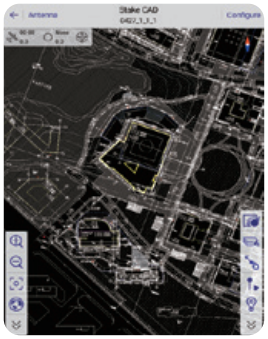
A The calibration free Tilt Survey increases performance in the field.



B Augmented Reality (AR) guides the user with intelligent voice, video and compass directions.

C Using the sky plot interface surveyors can view how many satellites are being tracked, PDOP, elevation mask, satellite constellations plus other information.

D CAD and GIS management tools support large raster and vector data for map and data import / export.



PERFORMANCE SPECIFICATIONS

GNSS Feature	Specifications	
GNSS Signal	**Channels**	800+
	GPS	L1, L2, L5, L2C
	BDS	B1, B2, B3, B1C, B2A[1]
	GLONASS	L1, L2, L3[2]
	Galileo[3]	E1, E5, AltBOC, E5A, E5B, E6
	SBAS	L1, L5
	QZSS	L1, L2, L5, L6
	IRNSS	L5
Positioning Performance	**High-precision static GNSS Surveying** **Static and Fast Static** **Post Processing Kinematic** **(PPK / Stop & Go)**	Horizontal: 2.5 mm + 0.1 ppm RMS — Vertical: 3.5 mm + 0.4 ppm RMS Horizontal: 2.5 mm + 0.5 ppm RMS — Vertical: 5 mm + 0.5 ppm RMS Horizontal: 8mm + 1 ppm RMS — Vertical: 15 mm + 1 ppm RMS Initialization time: Typically 10 min for base and 5 min for rover Initialization reliability: Typically > 99.9%
	Code Differential GNSS Positioning	Horizontal: ±0.25 m + 1 ppm RMS Vertical: ±0.5 m + 1 ppm RMS — SBAS: 0.5 m (H), 0.85 m (V)
	Real Time Kinematic (RTK)	Horizontal: 8mm + 1ppm RMS — Vertical: 15mm + 1ppm RMS Initialization time: Typically < 10s — Initialization reliability: Typically > 99.9%
	Time to first Fix	Cold start: < 45 s — Hot start: < 30 s — Signal re-acquisition: < 2 s
	Hi-Fix[5]	Horizontal: RTK[6] + 10mm / min RMS — Vertical: RTK[6] + 20mm / min RMS
	Tilt Survey Performance	Additional horizontal pole-tilt uncertainty typically less than 8 mm + 0.7 mm / °tilt (2.5 cm accuracy in the inclination of 60°)
Communication	**Communication**	Bluetooth: 4.2 / 2.1 + EDR, 2.4 GHz Wi-Fi: frequency 2.4 GHz, Supports 802.11 a / b / g / n
	Internal UHF Radio	Frequency: 410-470 MHz — Channel: 116 (16 scalable) Transmitting power: 0.5 W / 1 W / 2 W adjustable Supports multi-communication protocols: TRIMTALK450S, TRIMMARK III, TRANSEOT, SATEL-3AS, etc.
Physical	**Internal battery**	Internal 7.4V / 6800 mAh lithium-ion rechargeable battery RTK Rover (Network) for 12 hours — Static: up to 15 hours
	External power	Power consumption: 4.2 W — Dimensions (W × H): 132 mm × 67 mm Charging: using standard smartphone chargers or external power banks Weight: ≤ 0.8 kg (includes battery) — Data storage: 8 GB ROM internal storage
Control Panel	**LED Lamp**	Satellite, Signal, Power
	Physical button	1
Environment	**Water / Dustproof**	IP67
	Shock and vibration	Designed to survive a 2 m natural fall onto concrete
	Humidity	100%, condensing
	Operation temperature	-30° C ~ +70° C
	Storage temperature	-40° C ~ +80° C
I / O Interface	**1 × USB port, Type C**	
	1 × SMA antenna connector	
Data Formats	**Output rate**	1 Hz - 20 Hz.
	Static data format	GNS, Rinex
	Network model	VRS, FKP, MAC; supports NTRIP protocol
	CMR & RTCM	CMR, RTCM 2.x, RTCM 3.0, RTCM 3.2
	Navigation outputs ASCII	NMEA-0183

1. The hardware of this product is designed for Beidou B3 compatibility (trial version) and its firmware will be enhanced to fully support such new signals as soon as the officially published signal interface control documentation (ICD) becomes available.

2. There is no public GLONASS L3 CDMA or Galileo E6 ICD. The current capability in the receivers is based on publicly available information.

3. Developed under a License of the European Union and the European Space Agency.

4. Input only network correction.

5. Accuracies are dependent on GNSS satellite availability. Hi-Fix positioning ends after 5 minutes of radio downtime. Hi-Fix is not available in all regions, check with your local sales representative for more information.

6. RTK refers to the last reported precision before the correction source was lost and Hi-Fix started.

Descriptions and Specifications are subject to change without notice

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