



# V700S

SLAM RTK





## Full-Constellation Tracking: Strong Signal & High-Quality Data

- Supports 1408 channels
- **New GNSS SoC chip:** Low power consumption, extended battery life.
- **Advanced technology:** Advanced multi-frequency anti-interference and adaptive filtering technology ensures strong signal reception, high-quality data and excellent accuracy.



## Innovative Industrial Design

- **Compact & lightweight** for easy handling.
- **Screw-lock mechanism** securely connects the device and battery handle, ensuring reliable and stable operation.

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E:435687.323

H:2.645



## Contactless Measurement

- Utilizing laser point cloud data and image data provides real-time acquisition of rich geospatial information efficiently and conveniently.
- This technology greatly expands the application scope of GNSS, allowing measurements in areas like under bridges, culverts, and enclosed spaces, ensuring efficient and safe operations.
- Leveraging Android's high-performance laser point cloud and image processing technology, users can simply take a photo to obtain coordinates of multiple points on the handheld software. With an accuracy of 5cm, it doubles working efficiency.



## Unified Coordinate Framework

- RTK + SLAM Fusion: V700S delivers real-time centimeter-level positioning outdoors while automatically aligning point cloud data, ensuring unified coordinate output (BLH/NEH).
- Control-free scanning: V700S requires no control points, allowing users to scan freely without returning to previous locations - dramatically improving on-site efficiency.



## Laser Reverse Positioning Technology: Precision Measurement without Signal

Hi-Target's innovative Laser Reverse Positioning Technology enables seamless cross-environment measurement. Outdoors, the high-precision RTK module delivers centimeter-level accuracy. In GNSS-denied areas like under bridges or eaves, the system automatically switches to laser-based positioning, ensuring uninterrupted data capture.





## Real-time Volume Calculation

Through laser point cloud data, rich three-dimensional data of ground objects can be obtained in real time. By leveraging high-performance Android-based processing technology, quantitative results can be derived efficiently and conveniently.



## 8-INCH ROBUST TABLET



2.0GHz, 8 cores high-speed processor



6+128GB large memory



8200 mAh high capacity battery



Based on Android 10, more smooth operation



## APPLICATIONS



Urban Renewal



Volume Measurement



Tunnel Surveying



Forestry Survey



Underground Pipelines

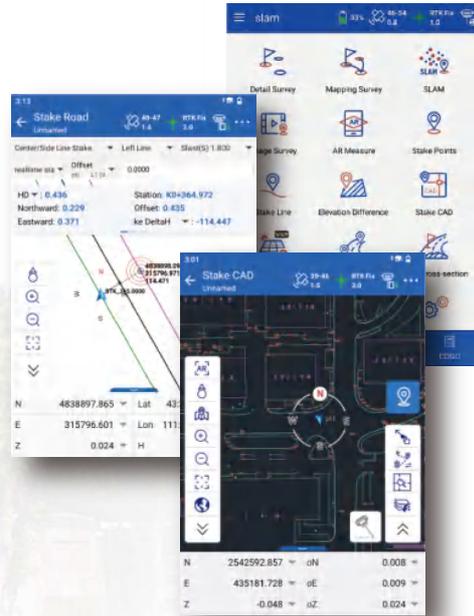


Architectural Survey

# SOFTWARE

## Hi-Survey Field Software

- High-performance laser point cloud & image processing engine for real-time solutions and visualization.
- Precision heat map display allows users to monitor accuracy in real time.
- Integrates industry-leading CAD & real-scene engines for an intuitive, visual measurement and layout experience.



## Office Software for Post-processing

- Hi-LiDAR software refines real-time data, delivering point clouds with sub-2 cm thickness and <1 cm relative measurement precision.
- Automated excavation analysis: Calculates over/under-excavation for tunnel sections, enabling construction progress tracking and validation.
- Advanced section visualization & drafting: Supports horizontal/vertical section views, aiding in renovation planning for older buildings with precise architectural measurements.



CE

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## TECHNICAL SPECIFICATIONS

<b>GNSS Configuration</b>	Channel	1408	
	GNSS Signal	GPS: L1C/A, L1C, L2P(Y), L2C, L5	
		BDS: B1I, B2I, B3I, B1C, B2a, B2b	
		GLONASS: L1, L2, L3	
		GALILEO: E1, E5a, E5b, E6	
		QZSS: L1, L2, L5, L6	
		NavIC: L5	
		SBAS: L1, L2, L5	
PPP: B2b-PPP, E6-HAS			
Output Format	ASCII: NMEA-0183, Binary		
Output Rate	1Hz~20Hz		
Static Data Format	GNS, Rinex		
Real Time Kinematic	RTCM2.X, RTCM3.X		
Network Mode	VRS, FKP, MAC, Support NTRIP protocol		
<b>System Configuration</b>	Operation System	Linux	
	Storage	Circulating 512GB ROM	
<b>Accuracy and Reliability<sup>[1]</sup></b>	High-precision Static	H: 2.5 mm + 0.1 ppm RMS	V: 3.5 mm + 0.4 ppm RMS
	Static And Fast Static	H: 2.5 mm + 0.5ppm RMS	V: 5 mm + 0.5ppm RMS
	PPK	H: 8mm + 1ppm RMS	V: 15mm + 1ppm RMS
	PPP	H: 10cm	V: 20cm
	Code Differential Gns Positioning	H: ±0.25m+1ppm RMS SBAS: 0.5m (H), 0.85m (V)	V: ±0.5m+1ppm RMS
	Real Time Kinematic (RTK)	H: 8mm+1ppm RMS Initialization time: Typically <10s	V: 15mm+1ppm RMS Initialization reliability: Typically > 99.9%
	Tilt Survey Performance <sup>[2]</sup>	8mm+0.3mm/°tilt	
	Ar Stakeout	Support	
	Image Measurement	A single photo can acquire multiple point coordinates with an accuracy of 5cm <sup>[3]</sup>	
	Real-time Accuracy Evaluation	Supports	
<b>Camera</b>	Pixel	3 professional HD cameras, 1bottom camera	
	Function	Support AR stakeout, image measurement, working distance 2~15m	
<b>Laser Scanner</b>	Range	0.1~ 40m@10%, 0.1~ 70m@80%	
	Point Measurement Rate	200,000 pts/sec	
	Laser Product Classification	Class 1 eye safe	
	FOV	H: 160°	V: 59°
<b>IMU</b>	Update Rate	200Hz	
<b>Communication</b>	I/O Interface	USB type C port; SMA antenna port; Nano SIM card slot	
	Network	TDD-LTE, FDD-LTE, GSM	
	Wi-Fi	IEEE 802.11a/b/g/n/ac/ax, 2.4GHz/5GHz, Wi-Fi hotspot	
	Bluetooth	Bluetooth 5.2	
	Internal UHF Radio	Power: 0.5W/1W adjustable    Frequency: 410MHz~470MHz Protocol: HI-TARGET, TRIMTALK450S, TRIMMARK III, SATEL-3AS, TRANSEOT, etc. Channel: 116 (16 scalable)	
<b>Sensor</b>	Electronic Bubble	Supports	
	Tilt Survey	Built-in high-precision IMU module	
<b>Control Panel</b>	Physical Button	Single button	
	Display	2.8 inch, 480×640 pixel touchable screen	
	Led Lights	Mode, accuracy, network	
<b>Application</b>	Advanced Function	NFC, WebUI, firmware upgrade via u-disk	
	Intelligence Application	Intelligent voice, self-check	
	Remote Service	Message push, online upgrade, remote control	
<b>Physical</b>	Power <sup>[4]</sup>	Lithium battery, portable charger	
		RTK rover(UHF/Cellular): up to 10 hours	SLAM mode: up to 5 hours
		USB 45W fast charging, fully charged in 2 hours	
	Size	Φ134.4mm×109.9mm	
Weight	1.68kg		
<b>Environments</b>	IP Rating	IP64	
	Humidity	100% non-condensing	
	Operation Temperature	-20 C ~+55 C	
	Storage Temperature	-40 C ~+70 C	

Note:

[1]The measurement accuracy, precision, reliability and initialization time depend on various factors, including tilt angle, number of satellites, geometric distribution, observation time, atmospheric conditions and multi-path validation, etc. The data are derived under normal conditions.

[2]Irregular operations such as rapid rotation and high-intensity vibration may affect the inertial navigation accuracy.

[3]The results are the accuracy obtained in laboratory scenarios, and some scenarios may have accuracy deviations.

[4]The battery operating time is related to the operating environment, operating temperature and battery life.

Descriptions and Specifications are subject to change without notice.