

V700S

SLAM RTK





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

- Supports 1760 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.
- **Metal lock mechanism** securely connects the device and battery handle, ensuring stable operation.

N:2542629.911

E:435687.323

Z: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 better than 5cm within a 15m working distance, 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/NEZ).
- 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.



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.



AUTHORIZED DISTRIBUTION PARTNER

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Hi-Target Surveying Instrument Co. Ltd

ADD: Hi-Target Headquarters, No. 6, Hongchuang 2nd Street,
Nancun Town, Panyu District, 511442 Guangzhou, China
www.hi-target.com.cn +86-20-28688296 sales@hi-target.com.cn



TECHNICAL SPECIFICATIONS

GNSS Configuration	Channel	1760		
	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			
System Configuration	Operation system	Linux		
	Storage	Circulating 512GB ROM		
Accuracy and Reliability^[1]	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: 5mm + 1ppm RMS	V: 10mm + 1ppm RMS	
	PPP	H: 10cm	V: 20cm	
	Code Differential GNSS 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 ^[2]	8mm+0.3mm/°tilt		
	AR stakeout	Support		
	Image measurement	A single photo can acquire multiple point coordinates, with an accuracy of better than 5cm within 15 meters ^[3]		
	Real-time accuracy evaluation	Supports absolute pressure ≤ 5 cm (RTK) / ≤ 4 cm (PPK).		
Camera	Pixel	3 Professional Dual HD Cameras		
	Function	Support AR stakeout, image measurement, working distance 2~15m		
Laser Scanner	Range	0.1~ 40m@10%, 0.1~ 70m@80%		
	Laser product classification	Class 1 Eye Safe Compatibility for exporting LAS, LAZ, PLY or equivalent formats		
	FOV	H: 160°	V: 59°	
IMU	Update rate	200Hz		
Communication	I/O Interface	USB type C port; SMA antenna port; Nano SIM card slot		
	Network	TDD-LTE, FDD-LTE, GSM		
	WiFi	IEEE 802.11a/b/g/n/ac/ax, 2.4GHz/5GHz, Wifi 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)		
Sensor	Electronic bubble	Supports		
	Tilt Survey	Built-in High-precision IMU Module		
Control Panel	Physical button	Single button		
	Display	2.8 inch, 480×640 pixel touchable screen		
	LED lights	Mode, Accuracy, Network		
Application	Advanced function	NFC, WebUI, Firmware upgrade via U-disk		
	Intelligence application	Intelligent Voice, Self-check		
	Remote service	Message push, online upgrade, remote control		
Physical	Power ^[4]	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			
Environments	Water/dustproof	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.