TECHNICAL SPECIFICATIONS

GNSS Feature	Specification	
GNSS Signal ^[1]	Channels	1408
	GPS	L1C/A, L1C, L2P(Y), L2C, L5
	BDS	B1I, B2I, B3I, B1C, B2a, B2b
	GLONASS	L1, L2, L3
	Galileo	E1, E5a, E5b, E6*
	SBAS	L1, L2, L5
	QZSS	L1, L2, L5, L6*
	IRNSS	L5*
	L-BAND*	
		B2b-PPP*
Positioning Performance ^[2]	High-Precision Static	H: 2.5 mm + 0.1 ppm RMS
	Static and Fast Static	H: 2.5 mm + 0.5ppm RMS V: 5 mm + 0.5ppm RMS
	Post Processing Kinematic (PPK / Stop & Go)	H: 8mm + 1ppm RMS V: 15mm + 1ppm RMS Initialization time: Typically 10 min for base and 5 min for rover Initialization reliability: Typically>99.9%
	PPP	H: 10cm V: 20cm
	Code Differential GNSS Positioning	H: ±0.25m+1ppm RMS V: ±0.5m+1ppm RMS SBAS: 0.5m (H), 0.85m (V)
	_	Horizontal: 8mm+1ppm RMS Vertical: 15mm+1ppm RMS
	Real Time Kinematic (RTK)	Initialization time: Typically <10s Initialization reliability: Typically > 99.9%
	Time to first Fix	Cold start: < 45s Hot start: < 30s Signal re-acquisition: < 2s
	Hi-Fix ^[5]	H: RTK+10mm / minute RMS V: RTK+20mm / minute RMS
	THE IX.	
	Tilt Survey Performance[3]	Additional horizontal pole-tilt uncertainty typically less than 8mm+0.7mm/°tilt (2.5cm accuracy in the inclination of 60°)
	AR stakeout accuracy	1cm
Physical	Dimensions (W x H)	130mm × 68mm
	Weight	≤ 0.75kg (1.65lb)
	Operation temperature	-40°C~+75°C (-40°F~+167°F)
	Storage temperature	-55°C~+85°C (-67°F~+185°F)
	Humidity	100% non-condensing
	Water/dustproof	IP68 dustproof, protected from temporary immersion to depth of 1.0m (3.28ft)
	Shock and vibration	MIL-STD-810G, 514.6
	Free fall	Designed to survive a 2m(6.56ft) natural fall onto concrete
Electrical		Internal 7.4V / 6800mAh lithium-ion rechargeable battery
	Internal Battery ^[4]	RTK rover(UHF/Cellular): up to 24 hours
	Futomal name	Using standard smartphone chargers or external power banks
	External power	(Support 5V 2.8A Type-C USB external charging)
Communication	I/O Interface	1 × USB type C port; 1 × SMA antenna port
	WiFi	Frequency 2.4GHz, Supports 802.11 a/b/g/n
	Bluetooth	BT 5.2, 2.4GHz
		Power: 0.5W/1W/2W Adjustable Frequence: 410MHz~470MHz
	Internal UHF Radio	Protocol: HI-TARGET, TRIMTALK450S, TRIMMARK III, SATEL-3AS, TRANSEOT, etc.
	Internal One Radio	Working Range: Typically 3~5km, optimal 8~15km
		Channel: 116 (16 scalable)
Camera	Function	Professional starlight night vision HD camera, large viewing angle, support live view stakeout
Control Panel	Physical button	1
System	LED Lights	Satellite, Signal, Power
	Storage Output format	16GB ROM internal storage ASCII: NMEA-0183
	Output rate	1Hz~20Hz
-	Static data format	GNS, Rinex
Configuration	Real Time Kinematic (RTK)	RTCM2.X, RTCM3.X
	Network Mode	VRS, FKP, MAC, Support NTRIP protocol

[1]BDS B2b, GALILEO E6, QZSS L6, IRNSS L5 can be provided by firmware upgrade.

[1]BDS BZD, GALILEU Eb, QZSS Lb, IRNSS Lb can be provided by Irrmware upgrade.

[2]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.

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

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

[5]Accuracies are dependent on GNSS satellite availability. Hi-Fix Positioning ends after 5 minutes without differential data. Hi-Fix is not available in all regions, check with your local sales representative for more information.

Descriptions and Specifications are subject to change without notice





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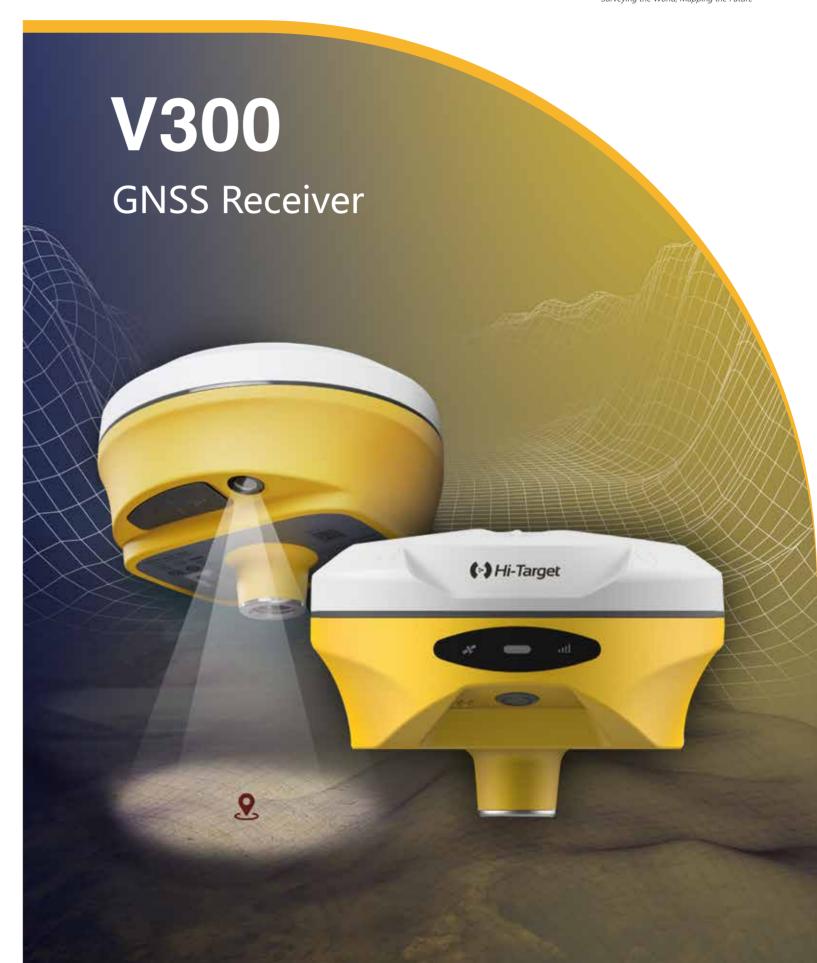
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Compact GNSS RTK with Long Endurance for Accurate Stakeout

Equipped with an upgraded high-definition starlight camera, V300 brings out an excellent visual stakeout experience in low-light conditions. The compact and lightweight design makes V300 a feasible and portable choice for engineering personnel in collecting data and improving positional accuracy.

Key Features







Upgraded IMU

AR Measurement

Live View Stakeout







24 Hours Ultra-Long battery life

Advanced RTK Engine

Portable and compact



Professional camera with a wide viewing angle for a better AR stakeout experience

- Visual positioning technology to find points with ease. The combination of virtual and reality by overlaying the design files with the real scene improves stakeout efficiency.
- Professional-grade starlight night vision HD camera with wide angle. Excellent performance and algorithm in tracking signals, achieving an accuracy of up to 1cm.
- Seamless switch of 360-degree AR stakeout between the handheld controller and the rover brings out immersive stakeout experiences making stakeout fast and accurate.



A new generation built-in high-precision tilt survey module enables automatic initialization at startup and attitude compensation.

- . Based on the new generation of IMU, initialization occurs automatically at the startup without obtaining a fixed solution.
- Measure as reaching the point, efficient and convenient.
- Stable performance for reliable results.



Full constellation and full frequency GNSS that supports BeiDou-3 Navigation Satellite System fully.

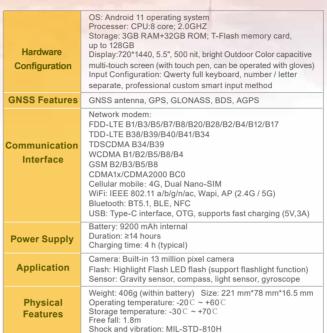
- Advanced GNSS SoC chip features 1408 channels, supporting new frequency points B1C, B2a, and B2b RTK decoding for Beidou-3 Satellites.
- Multi-frequency interference detection technology and multi-stage adaptive filtering technology with a strong signal, good data, fast fixed procedure, and high accuracy.



New iHand55

Professional Field Controller

The iHand55 Handheld Controller is a professional field controller with a big vision. More features of the latest Hi-Survey Software contribute to achieving high intelligence. Keeping robust and reliable in fieldwork under any conditions, iHand55 is a perfect choice for your survey work.







Survey Data Collection Software

Hi-Survey is an Android software that is designed for all types of land survey and road engineering projects in the field. It is compatible with Hi-Target professional controllers, Android phones, tablets and other third-party Android devices. It is a sleek and easy-to-use software that supports the operating of big data with built-in tools. With customized industrial application solutions, more possibilities are created for users.

KEY FEATURES



High accuracy and good reliability with various algorithms even in tough environments.

Supporting tilt survey, quasi-dynamic technology, electronic bubble, detail survey, time mode static survey, etc...



Integrated professional measurement functions for engineering application. Providing road functions, DTM surface operations, Cross-projects points selection, DXF and DWG format, Google map, OGC map service of WMS, WMTS, and third-party rangefinders, etc..



Strong interaction function to empower every surveyor.

AR stakeout, QR code scanning, COGO, FTP transmission, multi-format support etc..

