

PRODUCT CATALOG



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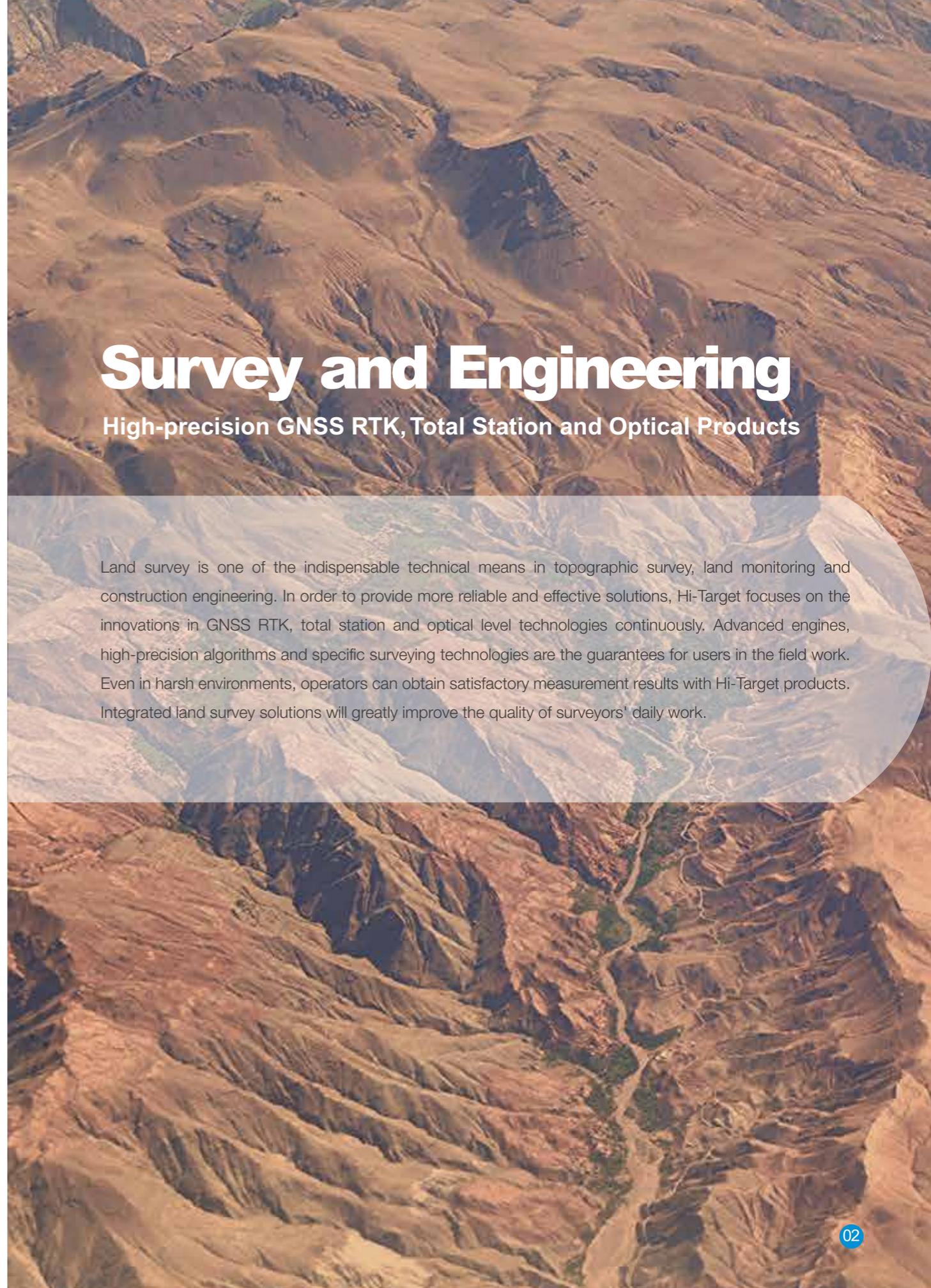
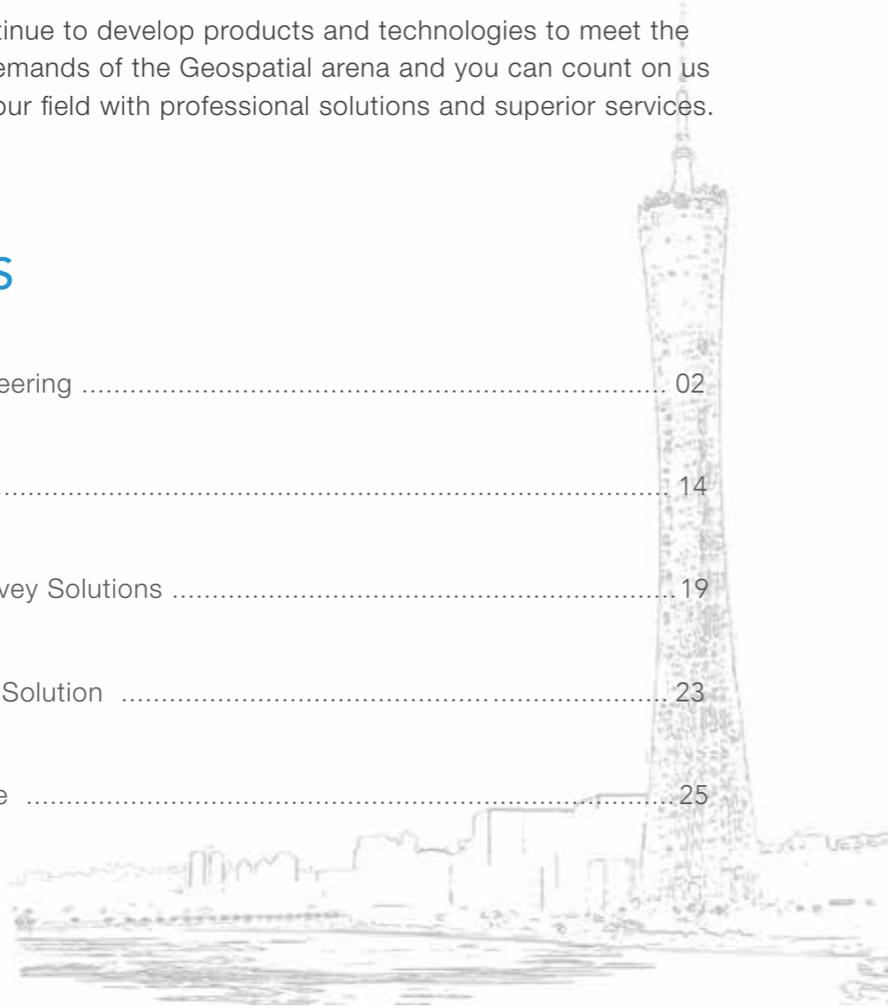
Established since 1999, Hi-Target is the first professional high-precision surveying and mapping instrument brand to be successfully listed in China. Hi-Target produces a wide range of surveying equipment including GNSS receivers, CORS stations, TS, 3D Laser Scanners, GIS Data Collectors, UAV/UAS, and Hydrographic products to provide complete commercial solutions for various industries.

As the leading brand in the geospatial industry, Hi-Target invests heavily in research and development, on top of collaborating with more than 100 universities globally to bring the latest positioning technology and innovation for product development.

Hi-Target will continue to develop products and technologies to meet the ever-increasing demands of the Geospatial arena and you can count on us to be the best in our field with professional solutions and superior services.

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Survey and Engineering

High-precision GNSS RTK, Total Station and Optical Products

Land survey is one of the indispensable technical means in topographic survey, land monitoring and construction engineering. In order to provide more reliable and effective solutions, Hi-Target focuses on the innovations in GNSS RTK, total station and optical level technologies continuously. Advanced engines, high-precision algorithms and specific surveying technologies are the guarantees for users in the field work. Even in harsh environments, operators can obtain satisfactory measurement results with Hi-Target products. Integrated land survey solutions will greatly improve the quality of surveyors' daily work.

Visual Positioning Technology Empowers the New IMU GNSS RTK

- Equipped with dual cameras, vRTK is Hi-Target's first lightweight and innovative visual RTK receiver product, which not only enables non-contact image surveying, breaking through the objective constraints of previous work, but also improves the speed of stakeout with the function for Live View Stakeout. It greatly improves the work efficiency for engineering users.

KEY FEATURES

| | | | | | |
|---|---|---|---|--|---|
|  |  |  |  |  |  |
| Upgraded IMU: Tilt Survey with Auto Installation | AR Measurement | Live View Stakeout | Image Survey | Full-Constellation Tracking | Advanced RTK Engine |

Image Positioning Technology

The new image survey function achieves non-contact measurement, which greatly enhances the available range of GNSS, realizing more efficient and safe operation. Based on Android's high-performance image processing technology, vRTK with 5MP camera for the rear view, can be used to obtain precise coordinates in real time, in the range of 2-15 meters, with an accuracy of 2-4 cm.



Brand-new Stakeout Experience

The 2MP camera beneath enables AR live-view stakeout with an accuracy of 2cm, saving time and effort in reaching the stakeout point.



Strong Signal and High-Quality Data

A new generation of GNSS engine supports the new frequency points B1C, B2a, and B2b RTK decoding of the Beidou-3 satellite. With the introduction of multi-frequency anti-jamming technology and multi-step adaptive filtering technology, it features strong signal, high-quality data, fast fixing, and high accuracy.

Abundant Industry Data Results

The different types of data results obtained from vRTK are compatible with third-party data processing software, meeting the needs of different industry applications. Moreover, vRTK is newly compatible with mainstream modeling software, making 3D modeling as simple as possible.

9-axis IMU GNSS RTK

- V200 GNSS RTK Receiver brings superior performance and high efficiency to support your fieldwork with reliable solutions. Its deployment of the advanced RTK engine and new-generation IMU guarantees a 25% performance improvement even in the most demanding environments. Thus you can count on Hi-Target V200 for better productivity.

KEY FEATURES

| | | |
|---|---|---|
|  |  |  |
| Advanced RTK Engine | Full-Constellation Tracking | Web UI |
|  |  |  |
| Built-in Radio | NFC | Compatibility with third-party software |



More Portability

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



Greater Flexibility

It can bring accurate and reliable results and boost efficient fieldwork with self-developed built-in IMU and core algorithm.



Higher Accuracy and Precision

Equipped with the High-Performance Patch Antenna, enhances the low elevation angle tracking capabilities and keeps it maintaining a high gain for higher elevation satellites while tracking low-elevation satellites.



More Stability

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



iRTK5

High Quality Scalable GNSS RTK with HD Touchable OLED Screen

- Benefiting from the next-generation GNSS engine, unlimited communication technology and innovative design, iRTK5, the high-quality scalable GNSS receiver, provides industry-leading GNSS RTK surveying solutions.

KEY FEATURES



Next-Generation GNSS Engine

With the full-wave GNSS antenna and the next-generation GNSS engine, it supports full constellation by 336 tracking channels, enhanced initialization speed and anti-noise performance.

ProPoint (optional)

Brand-New ProPoint GNSS engine allows you to expand the boundaries of GNSS performance, with at least 30 per cent improved performance in challenging GNSS environments.

Hi-RTP™

The Hi-Target Hi-RTP™ global correction service extends the correction source, enabling users to work in rural or remote areas in the world without a base station, getting rid of range restrictions. It can harness all constellation signals from BDS, GLONASS, GPS, GALILEO with global distribution of 220+ stations, providing centimeter-level positioning accuracy.



RTX (optional)

Connected to 3rd-party L-Band corrections services, the iRTK5 GNSS receiver provides accurate, sub-decimeter positioning in all regions where RTK Network, GSM coverage or traditional GNSS base station are not available.



Revolutionary Tilt Survey with Built-in IMU

You can benefit from the calibration-free tilt compensation technology, which means that once reaching the surveying points, you can immediately start the operation without centring and the error is less than 2 cm within 30° inclination. The function also provides resistance to the interference of magnetic disturbances, ensuring the high accuracy of data. Compared with bubble leveling, it has boosted working efficiency by 20%.



Hi-Fix Technology

It can reduce downtime in the field with continuous RTK coverage during correction outages from an RTK base station or VRS network.



360° Omni-directional Antenna and Multi-protocol Radio

The top-mounted radio antenna extends the radio working range and enables full omni-directional communication, making the distance of data transmitting and receiving extend to 20% longer. Multi-protocol radio, support Hi-Target, TRIMTALK450S, TRIMMARK III, TRANSEOT, SATEL-3AS, etc.



Web UI Management

A built-in Web management system for real-time controlling and free configuration of the receiver. Users can check the status and information, make basic settings, upgrade firmware and download data, etc.



HD Touch OLED Screen

The 1.3-inch newly-designed color touch screen with 240*240 resolution allows users to quickly check and set the receiver status for easier fieldwork.



iRTK4

A Simple but not Simplistic GNSS System

- iRTK4 is a full-featured, intelligent GNSS receiver system equipped with an integrated new-generation full-frequency antenna and advanced multi-channel engine, allowing users to attain accurate, reliable solutions. Users can also take advantage of calibration-free tilt compensation technology without leveling the survey pole to collect point data in more places. In addition, the Smart Base function in iRTK4 automatically pairs the Rover with the Base by using Hi-Target global servers and ensuring communication by providing the best connection. The iRTK4 system can maximize your productivity in unprecedentedly challenging environments with these powerful features and Hi-Survey Road Field Software.

KEY FEATURES



Advanced RTK engine

Flexible Satellites signal management helps you to get a more accurate solution and provides a 20 per cent improved performance in challenging GNSS environments.



IMU

The calibration-free tilt compensation technology assists you to survey or stake out points accurately without leveling the pole, which boosts the working efficiency by 20 percent, with error that is less than 3cm within a 45° inclination.



Fast-Charge

With the fast-charge capability, it will take you only 50 minutes to charge the battery up to 50 per cent when using a 45-watt adapter, greatly saving your time.



WebUI

It is a fast and efficient way to monitor and control hardware devices, offering accesses to the most commonly-used features via the existing web browser on your device, so there is no need to download or install any other software.

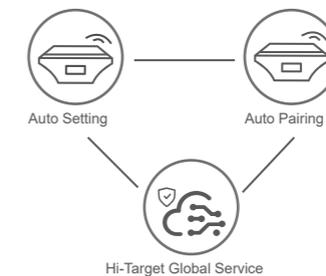


Hi-Fix Technology

It can reduce downtime in the field with continuous RTK coverage during correction outages from an RTK base station or VRS network.

Smart Base

Greatly optimizes the working mode setting, automatically pairing your Base and Rover by using the Hi-Target global service, extending your work range and saving you time.



New Generation External Radio

HDL-460A provides reliable data communications for mission-critical applications that require a combination of stability, supreme performance and long range.



V30 Plus

Smart and Portable RTK System

- V30 Plus GNSS RTK system adopts modularized design, so as to enable users to change into different differential transmission modules according to various requirements. Meanwhile the designed self-diagnosis function can automatically check the working status of all hardware and software, and arouse the problem part by its intelligent voice messenger in case of some problems.

KEY FEATURES

- Multi-Constellation GNSS Engine**
Auto-selected satellite constellations, unique boundary control algorithm provide reliable location in harsh environments.
- Tilt Survey and Electronic Bubble**
The optimized tilt survey algorithm and procedure electronic bubble can achieve conner points measurement by shaking the receiver.
- Hi-Fix Technology**
Reduce downtime in the field with continuous RTK coverage during correction outages from an RTK base station or VRS network.
- Practical Interface**
Mini USB, USB Quick Upgrade Firmware, 8G Storage, Support OTG, NFC Quick Connection.



iHand55

Professional Field Controller

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

KEY FEATURES

- Long-Distance Link
- AR Measurement
- Voice Control
- 5.5' Screen
- 1.8m Drop-proof
- Waterproof and Dustproof
- Long Battery Life
- Alphanumeric Keyboard

| | |
|-------------------------------|---|
| Hardware Configuration | OS: Android 10 Processor: CPU: 8 core; 2.0 GHZ Storage: 2 GB RAM+16 GB ROM; T-Flash memory card, up to 128GB Display: 720*1280, 5.5", bright Outdoor Colorcapacitive touch screen (with touch pen, can be operated with gloves) Input Configuration: Physical full keyboard, number / letter separate, professional custom smart input method |
| Communication | Cellular mobile: 4G, Dual SIM WiFi: IEEE 802.11 b/g/n, Wapi, AP Bluetooth: Built-in Bluetooth (2.1+4.0) NFC USB: USB, TypeC interface, OTG |
| Physical | Weight: 480g(with battery) Size: 236 mm*85 mm*25 mm Operating temperature: -20 C ~ +60 C Storage temperature: -30 C ~ +70 C Free fall: 1.8 m Shock and vibration: MIL-STD-810H |
| GNSS Features | GNSS: GNSS antenna, GPS, GLONASS, BDS, AGPS, 20 channels |
| Power Supply | Battery: 7500 mAh internal Duration: 14 hours |

Product Comparison

| Model | vRTK | V200 | iRTK5 | iRTK4 | V30 PLUS | |
|----------------------------------|------------------------------|--------------|--------------|--------------|--------------|-----------------|
| Picture | | | | | | |
| Satellite Signal Tracking | Channels 1408/800+(optional) | 800+ | 336 | 800+ | 800+ | |
| Satellite Signal Tracking | GPS | ● | ● | ● | ● | |
| | GLONASS | ● | ● | ● | ● | |
| | BDS | ● | ● | ● | ● | |
| | GALILEO | ● | ● | ● | ● | |
| | QZSS | ● | ● | ● | ● | |
| | SBAS | ● | ● | ● | ● | |
| PPP Service | — | — | ● | — | — | |
| Communication | Cellular Mobile | ● | — | ● | ● | |
| Communication | Wi-Fi | ● | ● | ● | ● | |
| | Bluetooth | ● | ● | ● | ● | |
| | Internal Radio | ● | ● | ● | ● | |
| | NFC | ● | ● | ● | ● | |
| | Internal Data Storage | 8 GB | 8 GB | 16 GB | 8 GB | 8 GB |
| Physical | Dimensions | 130mm×79mm | 132mm×67mm | 158mm×98mm | 156mm×77mm | 164mm×83.5mm |
| | Weight | 0.97 kg | 0.8 kg | 1.2 kg | 1.2 kg | 1.4 kg |
| | Screen | — | — | ● | ● | — |
| | Internal Battery | 6900 mAh | 6800 mAh | 6800 mAh | 6800 mAh | 5000 mAh |
| Environment | Operation Temperature | -40 C ~+75 C | -30 C ~+70 C | -40 C ~+75 C | -30 C ~+70 C | -45 C ~+75 C |
| | Water/ Dustproof | IP68 | IP67 | IP67 | IP68 | IP67 |
| Others | Tilt Survey | IMU | IMU | IMU | IMU | Tilt Survey 2.0 |
| | WebUI | ● | ● | ● | ● | ● |
| | Hi-Fix | ● | ● | ● | ● | ● |

*NOTE: ● means YES, — means NO.

Hi-Survey Road

Survey Data Collection Software

- Hi-Survey Road 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..



ROAD ENGINEERING SURVEY

- Integrated road function that supports the LandXml format in road staking out. The Hi-Survey Road supports road design, staking out and store cross-section.



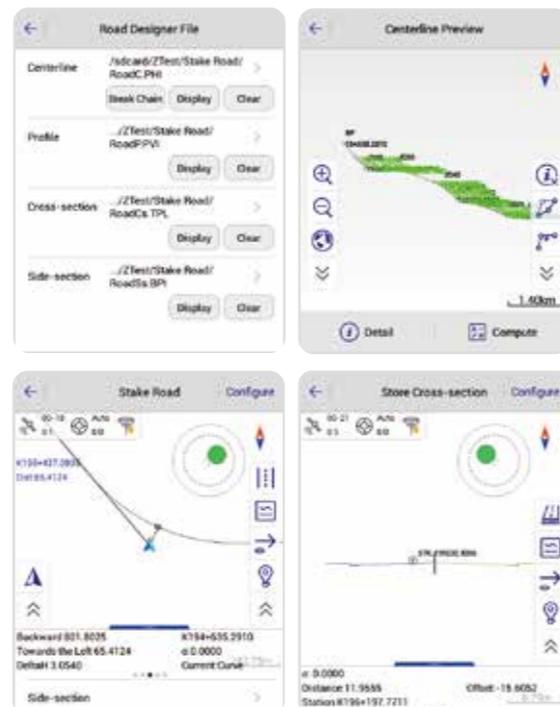
Design and apply the road in the Road Design, including the Centerline, Profile, Cross-section and Side-section.



View the graphic, confirm the location of stakeout points, and stake out the road in the Stake Road.



Survey and store cross-section points in the Store cross-section to get the undulating terrain.



Hi-Target Business Center

All-in-One Post-Processing Desktop Software



- HBC, the all-in-one post-processing desktop software, supports processing multi-sourced data from all kinds of surveying equipment, including RTK, total station, UAV, GIS, 3D laser and levels. This one-stop service simplifies the workflow and improves the efficiency of field data processing. HBC enables you to finish the joint-operation on multiple pieces of equipment in projects more easily, helping to fix various problems, like switching between lots of different processing software and data results that are not interconnected, as well as complex, cumbersome workflows.

JOINT WORK

HBC combines all the procedures of field survey:

Preparation

Surveyor organization (team-building management), coordinate system setting, RTK project control point/stake point input, road design and DTM surface design.

Field survey

GNSS static survey / RTK survey (surveying control).

Post process

GNSS static data processing, RTK Data processing, TS data processing, post mapping.

FUNCTION



GNSS Data Processing

Full constellation support:
GPS/GLONASS/Galileo/BeiDou
Supports the batch processing of more than 100 baselines
Greatly improved accuracy and speed



Mapping

Joint processing of various data:
GNSS static data/RTK/Total station data
Massive data management:
Supports GB level data import and smooth the process of browsing



Total Station Data Processing

Various data compatibility:
Hi-Target total station data/COSA traverse data/South coordinate point data
Adjustment:
Plane adjustment/plane + elevation adjustment Supports visualization of traverse
Export of adjustment results

RTK & Joint Work

- Multi-task management: Creates/imports multiple RTK project files
- Data preparation: Stake point/control point/graphic
- Code/CAD
- Distribution of measurement tasks
- Field data return to office
- Mapping
- Inspection/export of survey results

Road Design

- Batches multiple road designs: More convenient and efficient for data import
- Supports a variety of road file formats
- Line information is clear at a glance:
- Centerline/Profile/Cross-section
- Compatible with a more complex road file
- Data check, pile-by-pile table output

DTM

- Variety of DTM formats: Hi-Target/Cass/LandXML
- Batch import point data
- Quick create TIN
- Earthwork calculation and result output

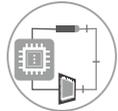


HTS-521^{L10} Total Station

HD Color Screen Long Range Total Station

- HTS-521^{L10} adopts a high-definition color screen to provide better human-computer interaction. The new optical design and absolute coding technology improve the measurement performance. High-precision compact bead shafting and sealed encoder disk enhance accuracy and stability. Built-in abundant measurement programs and comprehensive maintenance procedures will provide a new measurement experience.

KEY FEATURES



New Edm

Reflectorless range 1000m.
Speed down to 0.3s.



Colorful Screen

2.8-inch 240*320 pixel,
clearly visible in sunlight.



Auto Sensor

Get temperature and pressure automatically.
One-click access.



Stable Hardware Design

Dual-axis tilt sensor.
High-precision bead shafting. Sealed encoder disk.



Data Transmission

USB cable and U disk.
Format: (*.csv), (*.txt), (*.dat), (*.dxf), (*.gt7), (*.htf) etc..



Trigger Key

More efficient and accurate.



Power

3000mA high-capacity Li-ion battery, LED display, Type-C charging.
Battery life exceeds 18h.



Software Connection

Support connection with SurvCE and Hi-Survey Road.
Support secondary development.

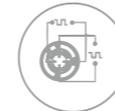


HTS-420R Total Station

The New Durable Total Station

- Upgraded by a new accurate EDM and built-in temperature and air pressure sensors, the new HTS-420R is going to provide a better experience for users.

KEY FEATURES



Dual Axis Compensator

Configured with advanced dual-axis compensator for auto error elimination, within the tilting range between +3' and -3'.



Temperature and Air Pressure Sensor

A built-in temperature and air pressure sensor provides precise temperature and pressure readings, guaranteeing precise PPM for accurate measuring on demand.



Long Reflectorless Ranging

Up to 600 meter long reflectorless range surveying with just one click.



Rugged Waterproof Design

Waterproof and dustproof IP65 design handles all kinds of tough environments.



ZTS-320R Total Station

The Rugged Dependable Total Station

- The rugged design total station with easy to use on-board program, providing the accurate and reliable result in tough conditions.

KEY FEATURES



Dual Axis Compensator

Configured with advanced dual-axis compensator for auto error elimination, within the tilting range between +3' and -3'.



Long Reflectorless Ranging

Up to 600 meter long reflectorless range surveying with just one click.



Rugged Waterproof Design

Waterproof and dustproof IP65 design handles all kinds of tough environments



Large Internal Storage

The large internal capacity enables more than 20,000 points storing with 32GB maximum external storage.



ZTS-360R Total Station

The Compact Precise Mini Total Station

- Lightweight and smaller design enabling the user a better carrying experience while the shortcut trigger button improves the speed of operation.

KEY FEATURES



Shortcut Trigger Button

With the trigger button users can survey the points directly once the targets are focused without turning eyes back to the panel, making work quicker and simpler.



Dual Axis Compensator

Configured with an advanced dual-axis compensator for auto error elimination, within the tilting range of +3' to -3'.



Long Reflectorless Ranging

Up to 600 meter long reflectorless range surveying with just one click.



Rugged Waterproof Design

Waterproof and dustproof IP66 design handles all kinds of tough environments.



Product Specifications

| | | HTS-521 ^{L10} | HTS-420R | ZTS-320R | ZTS-360R |
|-----------------------------|-----------------------------|------------------------|------------------|---------------------------------|---------------------|
| Angle Measure | Accuracy | 2" | 2" | 2" | 2" |
| | Single Prism Range | 5000m | 3000m | 3000m | 3000m |
| Distance Measurement | Accuracy with Prism | 2mm+2ppm | 2mm+2ppm | 2mm+2ppm | 2mm+2ppm |
| | Reflectorless Range | 1000m | 600m | 600m | 600m |
| | Accuracy with Reflectorless | 3mm+2ppm | 3mm+2ppm | 3mm+2ppm | 3mm+2ppm |
| Compensator | Working Range | Dual axis ±3' | Dual axis ±3' | Dual axis ±3' | Dual axis ±3' |
| | Setting Accuracy | 1" | 1" | 1" | 1" |
| Display | Graphics | LCD 240x320 | LCD 280x160 | Grey Display 192x96 | Grey Display 192x96 |
| | Sides | Dual side | Dual side | Dual side | Dual side |
| Power Supply | Battery Capacity | 3000mAh | 3000mAh | 3000mAh | 3000mAh |
| | Duration | 18 hours typical | 10 hours typical | 10 hours typical | 10 hours typical |
| Hardware | Weight incl. Battery | 5.5 kg | 5.5 kg | 5.5 kg | 3.7 kg |
| | Bluetooth | Yes | Yes | Yes | Yes |
| | Memory | 80,000 points | 80,000 points | 20,000 points, external storage | |
| Industry Level | Rugged Design | IP65 | IP65 | IP65 | IP66 |

Mobile GIS

Efficient GIS Data Collection and Management Solution

With the development of smart cities, precision agriculture and data visualization, GIS technology begins to play an important role in data acquisition and management. Hi-Target is dedicated to the research and development of portable GIS data collection products, including high-performance GIS handhelds, tablets and mobile GNSS receivers. Compact and rugged design greatly facilitates single person operation in the field. Hi-Target combines professional algorithms and intelligent software to provide users with more possibilities in data collection, management, query and application through various solutions.

Qbox 20

High-Precision GNSS Receiver for Mobile Works

- Qbox 20 GNSS Receiver is a wearable device that supports high-precision positioning, network transmission of positioning information, and is suitable for long-term outdoor operations.

KEY FEATURES



Free Your Hands

Small and compact, with 100*60*25 mm in size and 120 g in weight, wearable design to free your hands

Save Your Time

A removable 2800 mAh battery, offering overall battery life of 8 hours; also equipped with a charging stand that supports charging two batteries simultaneously

Boost Your Productivity

Supporting 2G/3G/4G network, able to communicate with and be controlled by other devices through Bluetooth

TECHNICAL SPECIFICATIONS

| | Product Model | Qbox 20 |
|-----------------------------|------------------------|---|
| GNSS Feature | Positioning Technology | Channel: 184 GLONASS: L1OF, L2OF GALILEO: E1, E5 GPS: L1, L2 BEIDOU: B1, B2 SBAS QZSS |
| | Initialization | 30 s (Typical) |
| | Autonomous | 3 m |
| | SBAS | 1-3 m |
| | RTK | 5 cm+1 ppm |
| System Configuration | Update Rate | 1-5 Hz |
| | OS | RTOS |
| | Processor | Cortex-M3 |
| | Storage | 32 MB |
| Data Communication | LED Indicators | Battery Capacity, CORS and server connection status indicator |
| | Network | FDD LTE: B1/B3/B5/B8 TDD LTE: B38/B39/B40/B41 DC-HSPA+/HSPA+/HSPA/WCDMA: B1/B5/B8/B9 GSM/GPRS/EDGE: 1800 MHz/900 MHz |
| | Bluetooth | Bluetooth 4.2 |
| | USB | Type-C |
| | Battery | Capacity: 3.8 V, 2800 mAh Fast Charge: 3 hours Operation Time (Continuously connecting CORS under Data Collector Internet working mode): 8 hours (single battery) Encryption chip: Support |
| Physical | Proof | IP65, anti 1.5 m free drop |
| | Size | 100*60*25 mm |
| | Weight | 120 g (with battery) |
| | Operating temperature | -30~+70°C |
| Storage temperature | -40~+80°C | |

Qpad X8

High-Precision Rugged Tablet

- Compact and portable, the Qpad X8 integrates the high-precision GNSS RTK algorithm to provide users with a consumer-grade smart tablet experience for GIS data collection in various industries. It's rugged with exquisite design and structure to achieve industrial-grade protection that can withstand tough environments, greatly facilitates data management and application in the field.

KEY FEATURES



Rugged design with IP67, anti 1.2m free drop.



8 inches touchable high resolution screen, 1200 x 1920 resolution.



Professional RTK engine with detachable spiral antenna.



Open platform for 3rd party software applications.

TECHNICAL SPECIFICATIONS

| | Product Model | Qpad X8 |
|---------------------------------|------------------------|---|
| Configuration | OS & Processor | Android 8.1 2.0 GHz, 8 Core high speed processor |
| | Storage | RAM 6 GB, ROM 64 GB, T-Flash Card 128 GB |
| | Display | 8 inches glare resistant, touchable screen |
| | Resolution | 1920x1200, readable under the sun |
| | Camera | 13 M Pixels rear camera, 8M pixels front camera, auto focus, highlight LED flash |
| | Build-in Sensor | G-Sensor, electronic compass, barometer, gyroscope, light sensor, distance sensor |
| GNSS Feature | Positioning Technology | GPS L1, BDS B1, GLONASS L1, Dual constellation system: GPS+GLONASS or GPS+BDS |
| | Channels | 184 |
| CM Version | Positioning Technology | GPS L1C/A L2C, GLO L1OF L2OF, GAL E1B/C E5b, BDS B1I B2I, QZSS L1C/A L2C SBAS |
| | Accuracy | Single positioning 2 m; Network RTK≤5 cm |
| Data Communication | Dual SIM | Support, Nano SIM |
| | Network Type | TDD-LTE/TD-SCDMA/FDD-LTE/WCDMA/GSM/CDMA/EVDO |
| | WIFI | IEEE 802.11b/g/n, AP, Wapi |
| | Bluetooth | Bluetooth 2.0/ 4.0, BLE |
| | USB | Type C, OTG function |
| Battery | NFC | Support |
| | Capacity | 3.7 V, 10000 mAh |
| | Quick Charge | Support |
| Physical Characteristics | Size | 220 mm*130 mm*18.5 mm |
| | Weight | 600 g (with Battery) |
| | Temperature | -40°C ~ +75°C(Working); -50°C~+85°C(Storage) |
| | Dustproof & Waterproof | IP67, anti 1.2 m free drop |

Qmini A10 Pro

High-Precision GIS Handheld Collector (with Intercom Function)

- Qmini A10 Pro provides a combination of Galileo positioning, dual-mode intercom, 4G smartphone, with background multi-network interconnection and other functions. It is small with complete functions and a high level of protection. Besides, it is a new type of rugged centimeter-level precision intelligent terminal product. This device can be widely used in industries, such as land and water resource inspection, land survey and electricity power inspection, etc..

KEY FEATURES



High and stable positioning accuracy of up to 2 cm

- Removable spiral GNSS antenna



UHF digital intercom + DMR analog intercom

- Intercom distance can reach 5km
- Support radio relay



Super performance

- Android 8.1
- 8 core 2.0 GHz high-speed processor, 6 GB RAM+64 GB ROM
- 5.5-inch outdoor FHD screen, resolution 1920 * 1080



Military quality

- IP67, anti 1.5 m drop
- 5500 mAh battery with 10-12 hours of battery life
- Can normally work at -20 C



INDUSTRIAL APPLICATION



Land and water resource inspection



Electricity power inspection



Construction



Pipeline



Forestry



Agriculture

TECHNICAL SPECIFICATIONS

| | Qmini A10 | Qmini A10(CM) | Qmini A10(Pro) | Qmini A10(UWB) |
|-----------------------------|--|---|---|---|
| Product model |  |  |  |  |
| GNSS Feature | Positioning Technology GPS GLONASS BEIDOU | Channel: 184 BEIDOU: B1, B2 | GPS: L1, L2 GLONASS: L1OF, L2OF GALILEO: E1, E5 QZSS L1C/A L2 SBAS | |
| | Initialization 30 s (Typical) | | 30 s (Typical) | |
| | Autonomous 5 m | | 3 m | |
| | SBAS — | | 1-3 m | |
| | RTK — | | 5 cm+1ppm(with spiral antenna) 2 cm+1ppm (with AT-35101H) | |
| | Update Rate 1Hz | | 1-20 Hz | |
| | UWB — | | | 10cm |
| System Configuration | Operating System Android 8.1 GMS certified | | | |
| | Processor 2.0 GHz, 8 core high-speed processor | | | |
| | Storage RAM 6 GB, ROM 64 GB, supports 128 GB T-Flash card | | | |
| | Display 5.5 inches outdoor FHD screen, Corning Gorilla Glass 3 | | | |
| | Resolution 1920x1080, 500 lumens | | | |
| | Touch Screen 5-point touch, support capacitor glove operation | | | |
| | Camera 8M pixel front camera, 13M pixel rear camera, autofocus, highlight LED flash | | | |
| | Sensor Accelerometer, distance sensor, light sensor, Angular velocity sensor, geomagnetic sensor, barometer | | | |
| Data Communication | Network Type GSM: 850/900/1800/1900 TDD-LTE: Band34/Band38/Band39/Band40/Band41 FDD-LTE: Band1/Band3/Band4/Band5/Band7/ Band8/Band12/Band20 | EVDO: BC0 | WCDMA: B1/B2/B5/B8 | |
| | WIFI IEEE 802.11b/g/n, AP, Wapi | | | |
| | Bluetooth Bluetooth 4.1, BLE | | | |
| | USB Type-C, support OTG | | | |
| Battery Feature | Capacity 3.7 V, 5500 mAh | | | |
| | Fast-Charge 3 hours | | | |
| | Operation Time (Normal brightness, positioning and connecting internet) | 10-12 hours | 10-12 hours | 9-10 hours |
| Modules | Intercom (400-470MHz, 2W) | — | — | UHF analog intercom + DMR digital intercom |
| | Encryption chip Support | | | |
| Physical | Proof IP67, anti 1.5m free drop | | | |
| | Size 165 * 85* 18mm | | | |
| | Working temperature -30~+70°C | | | |
| | Storage temperature -40~+80°C | | | |
| | Weight 339 g | 346 g | 358 g | 353 g |
| | Explosion-proof certification — | — | Exib IIB T4 Gb | — |

Hydrographic Survey Solutions

More than 70% of the earth is covered by water, deeply involving in the development of human civilization. To know more about the water covered area and contribute to the life and ecosystem, Hi-Target provides products from single beam to multibeam, from single point to point clouds, from analog signal to images, from big vessel to unmanned vessel platform...

New HD-MAX

Dual Frequency Echo Sounder

- HD-MAX dual-frequency echo sounder is widely used in sediment measurement for dredging and other water depth measurement projects in shallow water, deep water, and high sandy water. The full-featured Hi-MAX Sounder hydrographic software integrates bathymetry, navigation, and post-processing. Equipped with a 17" large screen and industrial computer platform, HD-MAX offers a set of reliable solutions for hydrographic offices around the world with a robust dual-frequency transducer and a user-friendly survey pole.

KEY FEATURES



The Combination of High and Low Frequency

HD-MAX features the simultaneous operation of both high and low frequencies at the same time, making it superior in both shallow and deep water.



The Full-Featured Hi-MAX Sounder Software

The powerful Hi-MAX Sounder displays, processes, and exports dual frequency data, supporting access to standard NMEA data from any receiver to provide accurate GNSS coordinates for the bathymetry data.



Rugged Industrial Platform

HD-MAX is designed with an enhanced computer platform, and has excellent performance in terms of stability and anti-interference, and compliant with EN 60945. 3 RS-232, 4 USB ports and 1 VGA to meet data transfer needs.



Digitized Results Correction with Echogram Overlaying

Correct the faulty digitized results based on the overlaid echogram to ensure the reliability of depth result especially in complex scenario.



HD-Lite

The Compact Single Beam Echo sounder

- HD-Lite is a rugged and compact PC built-in professional portable echosounder. Boosted by an upgraded sounder platform and enhanced hardware, HD-Lite provides users with a portable solution with accuracy and credibility.

KEY FEATURES



Professional Sonar System

With a smarter algorithm and optimized internal circuit design, the sounder adapts to most environments with better echo quality and accuracy.



15" Display Built-in PC

The 32G SSD storage-based windows 7 OS boosted by dual-core 1.92GHz CPU, smoothly runs programs for versatile applications related to hydrographic surveying.



Hi-MAX Collection & PP Software

Professional bathymetric data collection and post-processing software is easy to learn and master, with innovated functions which boost the efficiency.



Compatibility & Extendability

Compatible with 3rd party software and 3rd party GNSS receivers.



iBoat BS3

A Swift and Versatile Surface Platform

- Now our BS3 can do more than ever, whether it is bathymetry, investigation or even water current monitoring tasks.



Portable and Stable Body Design

The net weight of BS3 is less than 7KG and its whole body is small enough to fit into the trunk of a car. The streamline trimaran ensures sailing stability when facing the currents.



Precise Auto-pilot

With the smart controlling system and powerful propellers, BS3 can reach any targeted positions within 10 centimeter offset, providing precise survey lanes.



Perfect work with ADCP Onboard

Working with mounted Hi-Target iFlow ADCP, the system provides data you need in anywhere. Your own ADCPs can also work perfectly on BS3.



Professional Survey Echosounder

Built-in echosounder provides excellent sounding performance, with easy-to-use data collection and post processing software onboard.



Robust Communication

Through the spring-mount antenna signals, iBoat BS3 reaches a longer communication range with optimized frequency and power by the stronger environmental endurance.



Flexible Waterbed Imaging with Portable SSS

Hi-Target iSide 900P side scan sonar can show the target even in shallow water or in any tough condition where Big boat can't access. It's easy to mount it on the bottom of BS3 and let the boat sail.

USV Application

Initialization Work of Telecom Fiber Cable Route

BACKGROUND:

A telecom company wanted to improve the communication robust by laying more telecom fiber cables for the region in Zhujiang delta, an important industry area for the World Factory—China. Before the laying work, the terrain of the bottom, the environment of the 5 channels which the cable is going to cross is vital to be unveiled.

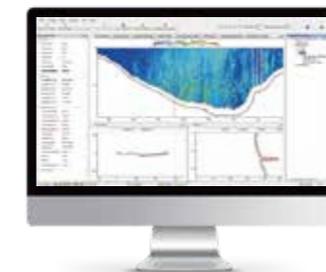
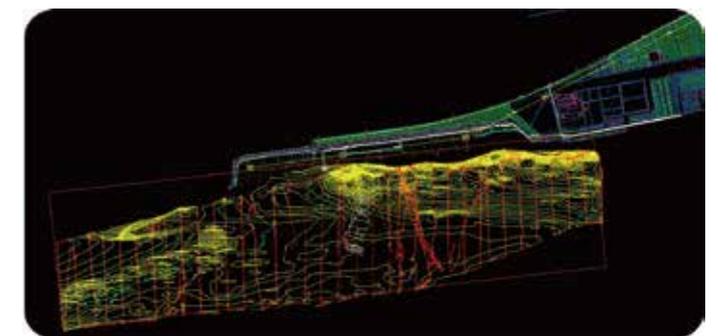
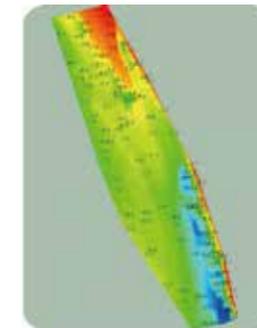
CHALLENGES:

- ▶ 5 channels in total to cross, they all need to be surveyed.
- ▶ Each of them has heavy traffic, 3000 ton-level vessel transportation, daily 800 vessels pass by.

CHALLENGES:

- ▶ 5 days, 2 men, efficient work to finish the project with sufficient data.
- ▶ Staff safety guaranteed during the survey, risk free.

RESULT SAMPLE:



Single beam echo sounder

ADCP

Side scan sonar

Side scan sonar

USV can greatly expand the ADCP and side scan sonar working flexibility while all things are still being processed on your professional laptop.

Smart Monitoring Solution

Providing monitoring professionals with the flexibility to swiftly analyze and understand complex projects with the highest accuracy and reliability, the Hi-target Smart Monitoring Solution is scalable and fully customizable for the specific needs of any users. The system adopts the most advanced millimeter level GNSS monitoring algorithm developed by Hi-target to overcome any monitoring challenges for continuous or periodic jobs.

Smart Monitoring Solution

MS302 Surface Displacement Monitoring GNSS Receiver



Full constellation GNSS receiver



Built-in large capacity lithium battery



Remote management, remote upgrade and status feedback



Built-in mass data storage card



Collect and transmit data from other sensors



MS401 All-in-one GNSS Receiver with Low Power Consumption and High Performance



Three constellations with eight bands.



Large capacity storage: 16GB + external storage (TF card).



The indicator is tilted at 45°, which fully considers the visual habit.



High integration: integrated GNSS board, MEMS sensor, and NB-IOT modules.



Configuration mode: support configuration by Bluetooth APP, web terminal, and remote control software.



High security: built-in firewall, high-security port, and other reliable functions for system management.



Built-in MEMS sensor with trigger function supports dynamic adjustment of monitoring frequency.



User-friendly: the monitoring system is easy-to-install and supports remote configuration. It can be configured within 1 minute.



Support solution of common reference station. The interval between the reference station and monitoring station is $\leq 15\text{km}$.



Low power consumption: average power consumption $\leq 2.6\text{W}$ (long link) saves the cost of power supply.



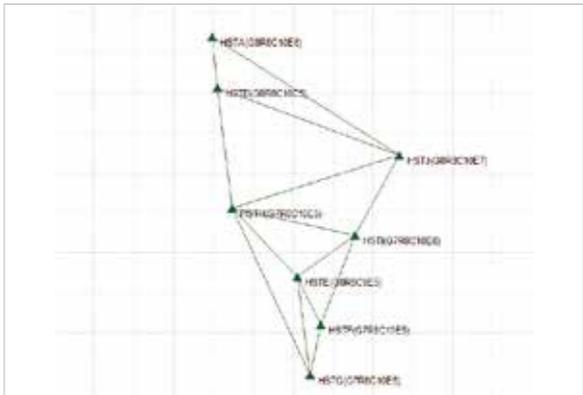
High level of protection: an industrial design with an IP68 protection rating for shockproof, drop proof, and lightning protection.



Functions of self-checking for working status, self-diagnosis, self-healing, power loss data protection, and real-time clock calibration.

Stable and Advanced CORS System

- The Hi-Target CORS is a highly integrated measurement system, providing Vnet GNSS reference receiver, 3D choke ring antenna hardware, data distribution and algorithm software and technical services, combining advanced and traditional GNSS technology to provide a complete solutions with data acquisition, processing, distribution and management.



GNSS Correction Services

With the development of GNSS technology, in order to overcome the difficulty of long distance, correction service brings revolution to the industry. Hi-Target CORS offers a precision position correction service for land surveying, maritime transport, earthquake monitoring, city administration and IoT, whether for temporary or long-term usage. In desert, weak infrastructure area, poor network environment, sea, snow mountain and challenge environment, Hi-Target Hi-RTP could provide global high-precision PPP service for land survey and marine, meanwhile, for autonomous driving, Hi-RTP could provide world-class precision and service, for precision agriculture, Hi-RTP could provide basic precision service for autonomous agricultural machinery and plant protection UAS.

KEY FEATURES



Ultra-high precision foundation reinforcement technology of centimeter and millimeter-level precision.



Millions of concurrent users server capacity enabling services varying from engineering to civilian applications.



Compatible with all brands base stations and terminal equipment.



Intelligent and firewall-protected management platform

