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Hi-Target Surveying Instrument Co. Ltd

ADD: Building 13, Tian'An Technology Zone HQ Center, No. 555, North of Panyu RD, Panyu District, 511400 Guangzhou, China. www.hi-target.com.cn +86-20-28688296 info@hi-target.com.cn ©2021 Hi-Target Surveying Instrument Co., Ltd. All rights reserved. PRODUCT CATALOG

# (•) Hi-Target

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.





### GNSS RTK System

 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



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.



• 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**



IMU

### 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 chanllenging 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.

iRTK5

**New-Generation RTK System** 

# 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

Smart Base

• 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**



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.

### 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.



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.

**V100** 

## Compact Network RTK System

• V100 is an ultra-compact GNSS RTK receiver with exquisite design and structure. It has multi-frequency full constellation technology, dual-mode Bluetooth and NFC, providing users with fast, efficient and reliable GNSS RTK surveying solutions.

### **KEY FEATURES**



### Multi-constellation Tracking

It supports full constellation satellite signals tracked simultaneously with 220 channels, and can obtain stable and reliable location information in various environments.

### Convenient Communication

Dual-mode Bluetooth 4.0 and NFC (Near Field Communication) technology provide a convenient way for connection and communication in field operations.

### **Powerful Battery**

Powered by a 6300 mAh high-capacity lithium-ion rechargeable battery, the V100 provides long-term uninterrupted measurement for users in data collector internet mode.

### Smaller and Lighter

V100 is only sized as 127.5 mm x 57 mm and weighs less than 700 g (including battery), which is smaller and lighter than traditional receivers and easier to carry.



# 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**



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### 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.



V30 Plus

# iHand30

## Professional Field Controller

• The iHand30 is a rugged field controller that is designed for data collection and GNSS device control. Based on the Android operating system, it is compatible with Hi-Target professional software and third-party Android software. Combining the physical keyboard with a touchscreen, it can boost efficient fieldwork and provide reliable solutions for users.

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### **KEY FEATURES**

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4G

Ergonomically designed, lighter and easy to hold. Industrial-grade protection that can withstand tough environments.

Convenient wireless data transmission via Bluetooth, Wi-Fi and 4 G.

Quick charge, with a large capacity lithium battery to ensure a whole day work.



# **Hi-Survey Road**

• 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.

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Detail Survey

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Mades Print

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Supporting tilt survey,

quasi-dynamic technology,

electronic bubble, detail survey,

ROAD ENGINEERING SURVEY

• Integrated road function that supports the LandXml

format in road staking out. The Hi-Survey Road

Design and apply the road in the Road Design,

including the Centerline, Profile, Cross-section and

View the graphic, confirm the location of stakeout

points, and stake out the road in the Stake Road.

supports road design, staking out and store

time mode static survey, etc..

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Strong interaction function to empower every surveyor.

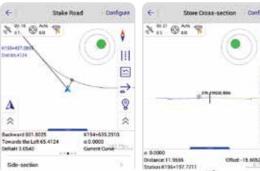
►AR stakeout, QR code scanning, COGO, FTP transmission, multi-format support, etc..

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..





**Centerline** Previe





# Survey Data Collection Software

**Product Comparison** 

Model		V200	iRTK5	iRTK4	V100	V30 PLUS
Picture	•		-	-	-	
	Channels	800+	336	800+	220	800+
	GPS	•	•	•	•	•
	GLONASS	•	•	•	•	•
0-4-11-4-	BDS	•	•	•	•	•
Satellite Signal	GALILEO	٠	٠	٠	•	•
Tracking	QZSS	•	٠	•	٠	•
0	SBAS	•	٠	٠	٠	•
	PPP Service		•			
	Cellular Mobile		•	•		•
	Wi-Fi	٠		•		•
Communication	Bluetooth	٠	٠	٠	٠	•
Johnnanication	Internal Radio	٠	٠	٠		٠
	NFC	٠	•	٠	٠	•
	Internal Data Storage	8 GB	16 GB	8 GB	8 GB	8 GB
	Dimensions	132mm×67mm	158mm×98mm	156mm*77mm	127.5mm×57mm	164mm×83.5mm
Physical	Weight	0.8 kg	1.2 kg	1.2 kg	0.7 kg	1.4 kg
	Screen		٠	٠		
	Internal Battery	6800 mAh	6800 mAh	6800 mAh	6300 mAh	5000 mAh
Environment	Operation Temperature	-30 °C ~+70 °C	-40 °C ~+75 °C	-30 °C ~+70 °C	-40 °C ~+65 °C	-45 °C ~+75 °C
	Water/ Dustproof	IP67	IP67	IP68	IP67	IP67
Others	Tilt Survey	IMU	IMU	IMU		Tilt Survey 2.0
Others	WebUI	٠	٠	٠		٠
	Hi-Fix	٠	•	•		•

\*NOTE: ● means YES, -- means NO.

Side-section.

cross-section.



Survey and store cross-section points in the Store

cross-section to get the undulating terrain.

# **HGO (Hi-Target Geomatics Office)**

### High-Precision GNSS Data Post-Processing Software



 HGO is designed to store, manipulate, process, manage and present spatial data captured by the GNSS survey. It's a PC desktop software that covers complete and stable GNSS data post-processing related functional modules, including baseline processing, network adjustment and tool modules, providing you with high quality solutions through a reliable and efficient data processing algorithm.

### **KEY FEATURES**



Advanced solution engine that focuses on GNSS data post-processing.

Stable and automatized data processing procedure for better solution results.



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Concise and user-friendly operational interface to Facilitate your work.

Information visualization and quality control for data management.

### **FUNCTIONS**



**Baseline Processing** Intelligent baseline vector processing, automated data culling and ambiguity search techniques, and refined data processing stochastic models to provide high-performance baseline solutions.



### Network Adjustment

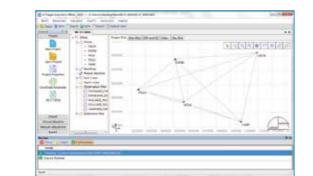
Further testing and optimizing the baseline vector processing results. Combined with multi-format detailed reports of network adjustment results, users can clearly get accurate data adjustment results.

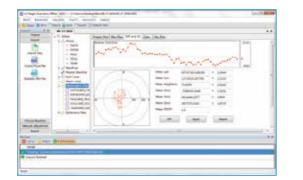
#### PPK & Hand-held Controller Projects Supports the hand-held controller project and produces well-developed PPK post-processing work. An integrated dynamic GNSS data post-processing engine boosts the excellent

# Modular Tools

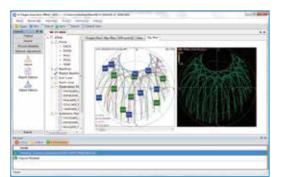
processing work further.

A variety of built-in modular tools are available, including ephemeris forecasting, receiver management, coordinate transformation, precision ephemeris download, data quality analysis, RINEX conversion tool, etc.,









# **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.



# RTK

### **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**

Distribution of measurement tasks

• Inspection/export of survey results

Field data return to office

point/graphic

Code/CAD

Mapping

- 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



# **Hi-Target PPK GO**

## Post-Processing Software for UAVs

• Hi-Target PPK GO post-processing software enables consumer grade UAVs like Phantom 4 RTK, Matrice210, Matrice300 drones to achieve the most accurate and reliable camera positioning data in any coordinate system without the measure targets or GCPs. With 2cm accuracies on XYZ, the output text file with position information or geotagged images can then be used directly in major photogrammetric mapping or 3D Survey software.

### STREAMLINED WORKFLOW



Phantom 4 RTK

#### Capture & Input • Auto-detect and load Images/GNSS raw data/ Timestamp/IMU correction from DJI or Yuneec field project.

CORS/SBAS/Hi-RTP base data automatic matching.
 3D lever arm correction.
 Global coordinate system and geoid support.
 Geotagging into image EXIF or exporting text reports for photogrammetry processing software.

Georeferencina

**PPK Go** 

# Processing Seamlessly compatible with all major

**3D Survey** 

stitching, analysis, and modeling tools. (Such as Metashape, pix4D mapper etc.)

### **KEY FEATURES**

### <sup>1</sup> Ultimate Efficiency to Reduced Workload

The PPK method makes it possible to perform high-precision aerial photogrammetry with a single or even zero GCP, which eliminates or shortens the duration of the RTK fix loss. This will greatly reduce the time and cost of field operations to ensure accuracy.

### • Smart Selection of Full Constellation

Using the free selection of GPS / GLONASS / Beidou / Galileo L1+L2+L5 for further parameter adjustments and position calculations in the PPK processing software to ensure the most reliable and accurate camera positioning even with poor single satellite system signals.

### • Integrated CORS/Hi-RTP Station Data

By gradually integrating the free and commercial CORS data sources globally, the software enables users to process their PPK data without having to set-up a base station which will significantly reduce the workload and investment in the field.

\* Japan CORS data access has been integrated in beta version and more regions will be added to the upgrades.

### • PPK Engine & SDK Support

Hi-Target PPK Go's core algorithm engine and SDK can be used for secondary development to customize PPK solutions for enterprises and individuals.









# **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**



600m

لسسا

#### 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**



600m

لسسا

### **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.



# **HTS-220R Total Station**

### The Compact PreciseTotal Station

• Total station working in the dark is no longer impossible.

### - KEY FEATURES



### Dual-axis Compensation

The HTS-220R is configured with advanced dual-axis compensator for auto error elimination and auto accuracy compensation

#### Bluetooth

The Bluetooth wireless technology makes HTS-220R accessible to any data collector for real-time communication. The third party field software such as Carison SurvCE is fully compatible with the HTS-220R.



### Diagonal Eyepiece

Support diagonal eyepiece for abservations at steep line of sight

### Data Transfer Software

The proprietary HI-TARGET data transfer software supports different type of output data format, which can be used in AutoCAD or other brands' post processing software

### **Product Specifications**

		HTS-420R	ZTS-320R	HTS-220R	
Angle Measure	Accuracy	2″	2"	2″	
	Single Prism Range	3000 m	3000 m	3000 m	
Distance	Accuracy with Prism	2 mm+2 ppm	2 mm+2 ppm	2 mm+2 ppm	
Measurement	Reflectorless Range	600 m	600 m	600 m	
	Accuracy with Reflectorless	3 mm+2 ppm	3 mm+2 ppm	3 mm+2 ppm	
Compensator	Working Range	Dual axis ±3'	Dual axis ±3'	Dual axis ±3'	
Compensator	Setting Accuracy	1″	1″	1″	
Display	Graphics	LCD 280x160	Grey Display 192x96	280x160 pixels	
	Sides	Dual side			
Power Supply	Battery Capacity	3000 mAh	3000 mAh	3000 mAh	
	Duration	10 hours typical	10 hours typical	10 hours typical	
Hardware	Weight incl. Battery	5.5 kg	5.5 kg	5.5 kg	
	Bluetooth	Yes	Yes	Yes	
	Memory	20,000 points, support external storage			
Industry Level	Rugged Design	IP65	IP65	IP65	



# **HT-32 Automatic Level**

### The Accurate and Credible Auto Level

(·) Hi-Targel

• Featuring a lightweight and easy-to-grasp compact design, the HT-32 is an air damping compensator; auto levelling provides durability and precision results for your surveying needs.

### **KEY FEATURES**

### Rapid and Stable Air-damping Compensator The excellent engineering quality prevents the X-style

air-damping compensator from being interfered with by

varying air-pressure and magnetic interference within the

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### Precise and Endless Horizontal Measurement

Horizontal angles can be read directly in 1° with an endless clampless and endless angle adjustments.

### All Weather Durable

range of  $\pm 15'$  tilting.

Operation ability in the most rugged sites and harshest conditions, like a sudden shower or torrential rainfall.

### Environmental-friendly Material

Adopting environmentally-friendly materials - the whole body is RoHS- certified: the HT-32 is fully recyclingable.

### Standard deviation for 1 km double levelling 1.6 MM Telescope Magnification 32X Filed of View 1°20' **Objective Aperture** 38 mm Minimum Focusing Distance 1m Stadia 100 Compensator Air-damped Compensating Range ±15' Setting Accuracy ±0.5" **Environmental Conditions** IP66 Protection Level Net Weight 1.4 KG



# **HDT2 Electronic Digital Theodolite**

### Smart Electronic Digital Theodolite

• Many functions such as measurement, calculation and display are realized by using microcomputer technology.

### **KEY FEATURES**



### Absolute Coding

Absolute coding angle measurement system, digital, intelligent, stable and reliable.



### Laser Function

Perfect combination of digital theodolite and laser, with laser pointing and laser centering function.



### High Quality

Highly integrated circuit board, high quality IC components, imported CCD sensor, ensure quality.



### Smart Sensor

Independent tilt sensor automatically corrects tilt errors.



# **HRL800R Rotary Laser**

### Entry-level and Practical Rotary Laser

• The Laser module of HRL800R will rotate freely to form a laser scanning surface, providing high precision leveling service.

### - KEY FEATURES

### Precise Leveling



360° horizontal and vertical leveling.

Flexible Rotation

Left and right spinning.

# Slope Setting

Manual slope setting in four directions.

# Fault Location

Up and plumbing dot.



# **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		
	Positioning Technology	Channel: 184 GPS: L1, L2 GLONASS: L10F, L20F BEIDOU: B1, B2 GALILEO: E1, E5 SBAS QZSS		
	Initialization	30 s (Typical)		
<b>GNSS Feature</b>	Autonomous	3 m		
	SBAS	1-3 m		
	RTK	5 cm+1 ppm		
	Update Rate	1-5 Hz		
	OS	RTOS		
System Configuration	Processor	Crotex-M3		
	Storage	32 MB		
	LED Indicators	Battery Capacity, CORS and server connection status indicator		
Data Communication	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	Туре-С		
	Capacity	3.8 V, 2800 mAh		
	Fast Charge	3 hours		
Battery	Operation Time (Continuously connecting CORS under Data Collector Internet working mode)	8 hours (single battery)		
	Encryption chip	Support		
	Proof	IP65, anti 1.5 m free drop		
	Size	100*60*25 mm		
Physical	Weight	120 g (with battery)		
	Operating temperature	-30~+70°C		
	Storage temperature	-40~+80°C		

• 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



### - TECHNICAL SPECIFICATIONS

	Product Model	Qpad X8		
	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		
Configuration	Display	8 inches glare resistant, touchable screen		
	Resolution	1920×1200, 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 SBA		
	Accuracy	Single positioning 2 m; Network RTK≤5 cm		
	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		
Data Communication	Bluetooth	Bluetooth 2.0/ 4.0, BLE		
	USB	Type C, OTG function		
	NFC	Support		
Battery	Capacity	3.7 V, 10000 mAh		
Battery	Quick Charge	Support		
	Size			
Physical	Weight	600 g (with Battery)		
Characteristics	Temperature	-40°C ~ +75°C(Working); -50°C~+85°C(Storage)		
	Dustproof & Waterproof	IP67, anti 1.2 m free drop		

# **Qpad X8**

High-Precision Rugged Tablet

# Qmini A10

# High-Precision GIS Handheld Collector (with Intercom Function)

 Qmini A10 provides a combination of Beidou high-precision 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.

## High-Precision Outdoor & Indoor Positioning Solution

• With the integrated antenna of high and low frequency, the Qmini A10 (UWB) is full-equipped with the UWB technology, satisfying the needs of full-scene applications, featuring high precision and low power consumption. Besides, when combined with indoor and outdoor high-precision fusion algorithm, it can realize the automatic conversion of the spatial coordinate system with centimetre-level position accuracy.

### - KEY FEATURES



### INDUSTRIAL APPLICATION



Land and water resource inspection



Pipeline



Electricity power inspection

Forestry



Construction



Agriculture



KTK      2 cm+1ppm (with AT-35       Update Rate     1Hz     1-20 Hz       UWB					
GNSS FeaturePositioning lechnologyBEIDOUBEIDOU: B1, B2GALILEO: E1, E5Q2Initialization30 s (Typical)30 s (Typical)30 s (Typical)Autonomous5 m3 mSBAS-1-3 mRTK-5 cm+1ppm(with spiral an 2 cm+1ppm (with AT-35)Update Rate1Hz1-20 HzUWBOperating SystemAndroid 8.1 GMS certifiedProcessor2.0 GHz, 8 core high-speed processorSvstemStorageRAM 6 GB, ROM 64 GB, supports 128 GB T-Flat					
GNSS Feature       Autonomous       5 m       3 m         Autonomous       5 m       3 m         SBAS       -       1-3 m         RTK       -       5 cm+1ppm(with spiral at 2 cm+1ppm (with AT-35)         Update Rate       1Hz       1-20 Hz         UWB       -       -         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-Flact					
Autonomous     5 m     3 m       SBAS     -     1-3 m       RTK     -     5 cm+1ppm(with spiral at 2 cm+1ppm (with AT-35)       Update Rate     1Hz     1-20 Hz       UWB     -     -       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-Flat					
RTK       —       5 cm+1ppm(with spiral at 2 cm+1ppm (with AT-35 2 cm+1ppm (with AT					
KTK      2 cm+1ppm (with AT-35       Update Rate     1Hz     1-20 Hz       UWB	— 1-3 m				
Update Rate       1Hz       1-20 Hz         UWB       —       —       —         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-Flat	5 cm+1ppm(with spiral antenna) 2 cm+1ppm (with AT-35101H)				
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-Flag					
Processor       2.0 GHz, 8 core high-speed processor         Storage       RAM 6 GB, ROM 64 GB, supports 128 GB T-Flag         System       Storage	10cm				
Processor       2.0 GHz, 8 core high-speed processor         Storage       RAM 6 GB, ROM 64 GB, supports 128 GB T-Flag         System       Storage					
System	2.0 GHz, 8 core high-speed processor				
System	RAM 6 GB, ROM 64 GB, supports 128 GB T-Flash card				
Display 5.5 inches outdoor FHD screen, Corning Gorilla	5.5 inches outdoor FHD screen, Corning Gorilla Glass 3				
Configuration Resolution 1920×1080, 500 lumens	1920×1080, 500 lumens				
Touch Screen 5-point touch, support capacitor glove opera	5-point touch, support capacitor glove operation				
Camera 8M pixel front camera, 13M pixel rear camera, autofocus, l	8M pixel front camera, 13M pixel rear camera, autofocus, highlight LED flash				
Sensor Accelerometer, distance sensor, light sensor, Angular v geomagnetic sensor, barometer	Accelerometer, distance sensor, light sensor, Angular velocity sensor, geomagnetic sensor, barometer				
GSM: 850/900/1800/1900 EVDO: BC0 WCDM Network Type TDD-LTE: Band34/Band38/Band39/Band40/Ba					
Data Communication WIFI IEEE 802.11b/g/n, AP, Wapi	IEEE 802.11b/g/n, AP, Wapi				
Bluetooth Bluetooth 4.1, BLE	Bluetooth 4.1, BLE				
USB Type-C, support OTG	Type-C, support OTG				
Capacity 3.7 V, 5500 mAh					
Fast-Charge 3 hours					
Battery Feature Operation Time (Normal brightness, positioning and connecting internet) 10-12 hours 10-12 hours 9-10 hours	10-12 hours				
Intercom UHF analog intercom	UHF analog intercom + DMR digital intercom				
Encryption chip Support					
Proof IP67, anti 1.5m free drop	IP67, anti 1.5m free drop				
Size 165 * 85* 18mm					
Physical Working temperature -30~+70°C	-30~+70°C				
Storage temperature -40~+80°C	-40~+80°C				
Weight         339 g         346 g         358 g					
Explosion-proof certification — — Exib IIB T4 Gb	353				

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# Qmini A5/A7

### High-Precision GIS Handheld

• Compact and portable, the Qmini A5/A7 handheld integrates a helical antenna and a high-precision GNSS RTK algorithm to provide users with a consumer-grade smartphone experience for GIS data collection in various industries.



⊨

Professional RTK engine with a high-precision algorithm.

High performance spiral antenna.

> 5500mAh battery for 12 hours continuous operation.

### **TECHNICAL SPECIFICATIONS**

	Product Model	Qmini A5/A7		
	Channels	AGPS spiral antenna: 72 channels		
	Signal Tracking	GPS: L1 C/A; GLONASS: L10F; BDS: B1; Galileo*: E1B/C; SBAS:		
	Signai nacking	L1C/A(WAAS, EGNOS, MSAS, GAGAN); QZSS: L1 C/A		
	Dual Constellation System	GPS+GLONASS or GPS+BDS		
GNSS Feature	Autonomous	3-5m		
	SBAS	1-3m		
	Network RTK	Qmini A5: ≤0.5m (RTD only); Qmini A7: ≤0.2m		
	Update Rate	1-5HZ		
	OS & Processor	Android 6.0, 2.0GHz, 8 core high speed processor		
	Storage	RAM 3GB, ROM 32GB, T-Flash Card 128GB		
Configuration	Display	5.5 inches glare resistant, touchable screen		
Configuration	Resolution	1920×1080, readable under the sun		
	Camera	13M Pixels camera, auto focus, highlight LED flash		
	Network Type	TD-LTE, FDD-LTE, TD-SCDMA, CDMA(EVDO,2000), WCDMA, GSM(GPRS)		
Data Communication	WIFI	IEEE 802.11b/g/n, AP, Wapi		
Data Communication	Bluetooth	Bluetooth 4.0, BLE		
	USB	Type-C , OTG function		
Battery	Capacity	3.7V, 5500mAh, working for 10-12 hours		
	R Module Scan	QR code, RFID/NFC		
Applications	Build-in Sensor	G-Sensor, electronic compass, barometer		
	Size	165mm*85mm*18mm		
Physical Characteristics	Weight	320g (with Battery)		
Characteristics	Temperature	-40 °C ~+85 °C (Operating); -50 °C ~+85 °C (Storage)		
	Dustproof & Waterproof	IP67, anti 1.5m free drop		

\* Galileo is reserved



AS: 



formats.

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propie

WMS



 Layer properties settings, customized radius buffer, online upgrade reminder, interface styles,

tools.

Multiple data collection methods provide more options based on layers.

capture, 3rd party rangefinders, etc.

Online and offline basemap that supports various sources for diverse applications.

Real-time google map, open street map, WMS, and other OGC-compliant map services.

Optimized data management modes and

Data dictionary, attributes query and editing, precision and range reminder, cloud backup, etc..

User-friendly navigation and trajectory functions for a better user experience.

Compass assistant, AR stakeout. real-time point or line trajectory, angle and distance calculation, etc..

Convenient switch of skyplot satellites and CORS source data protocol

▶ RTCM 1021-1027 check box for

selection, full constellation satellites

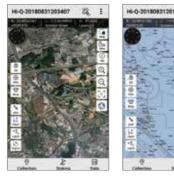
tools to boost efficient fieldwork.

► GPS detail survey, center point collection, cross acquisition, node

**KEY FEATURES** 



**GIS Data Collection Software** 

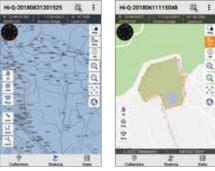


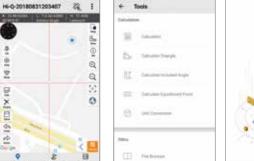
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• The Hi-Q is an Android software that is designed for professional GIS data collection and applications.

It is compatible with Hi-Target professional hand-held tablets, Android phones and other third-party android devices. Integrated with advanced GNSS and GIS technology, combined with the management of attributes and layers, it provides users with efficient mapping and surveying solutions with built-in







# **GIS Applications**

### Decimetric Accuracy GIS Solution -- Agriculture Application

### Background

With the continuous development of agricultural automation, precision agriculture and intelligent management have become a common need of farmers. GIS technology has gradually penetrated into agricultural applications such as crop planting, farmland boundary division and tree management. Decimeter-level GIS data acquisition solutions provide great convenience for farmers and managers.

### Implementation

Users can hold the device directly or put it on the farm machinery. Do data collection, attribute entry, layer management and information query of land objects with professional GIS data collection software (e.g. Hi-Q or third-party software).

### Advantages

- Visualize properties and land for comprehensive management.

- Intelligent navigation and recording during farming and sowing.
- Lay out areas and trace boundaries with DM-level accuracy.Efficient one-person operation mode for the farmer.

### Applicable Products

Qmini A5/A7



### - Centimetric Accuracy GIS Solution -- Railway Application

### Background

In many railway applications, corresponding attribute information is indispensable, while high-precision positioning data is required. centimetric GIS surveying and mapping provides a perfect solution for railway construction, safety inspection, deformation monitoring and other applications. Combined with location and attribute information in the GIS solution, railway operators can manage field projects more efficiently.

### Implementation

Users can hold the device directly or take it with a pole. Manage existing objects, collect data, stake out and gather attribute information in the railway project with professional GIS data collection software (e.g. Hi-Q or third-party software).

### Advantages

Real-time location information for the platelayer.
More accurate station maintenance and inspection.

- Remote management of staff location and status.

- Smart and visualized railway construction and stakeout.

Applicable Products
 Qmini A10(CM), Qpad X8 (CM), Qbox 20 etc..



# **Correction Service**

With the development of GNSS technology, in order 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.



# **Hi-RTP**

# CORS

**ESTAGRACIOE** 

## Stable and Advanced CORS System

HSTA COMPAC NEE

• 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.



### **KEY FEATURES**



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

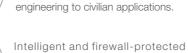


Compatible with all brands base stations and terminal equipment.



2**0**.

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management platform

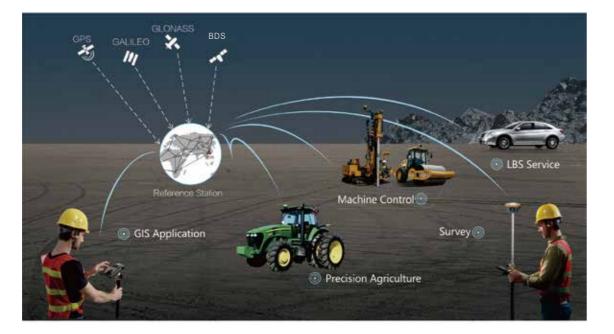
Millions of concurrent users server

capacity enabling services varying from

HITE DIRECTES

+ HETHICKECOE

HICOLOMBICHER



## Excellent Global PPP Service

• Hi-RTP is a high-precision satellite-based enhanced differential positioning service with global coverage. Using global uniform distribution with a ground-tracking network to generate high-precision real-time satellite orbits, clock errors, and ionospheric correction products. It is broadcasted to users through L-band communication satellites or Internet networks. Users can realize real-time dynamic decimeter level or even centimeter-level position accuracy at any time and any place with the GNSS receiver.





Accuracy: Sub-meter Convergence time: <5min



Accuracy: 10~20cm Convergence time: 20~30min



Accuracy: 5~10cm Convergence time: 15~20min RTP-RTK Ac

Accuracy: 3~5cm Convergence time: <3min

# HD-MAX & HD-Lite

### The Professional Single Beam Echosounder

• HD-MAX and HD-Lite are all PC built-in professional echosounder for bathmetry. Boosted by an upgraded sounder platform and enchanced hardware, they 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' and 17' 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.



350M

((•))

5"&17

#### post-processing software is easy to learn and master, with innovated functions which boost the efficiency.

Hi-MAX Collection & PP Software Professional bathymetric data collection and



Compatible with 3rd party software and 3rd party GNSS receiver; able to integrate the positioning module.



# **K20 Series**

### High precision position and heading GNSS receiver

• The K20 series is Hi-Target's next-generation multi-GNSS, multi-frequency receviers providing scalable service to marine and construction users with position and heading or pure high precision position for variant applications, with the capability of L-Band correction and multiple I/O interface for versatile data communication.

### - KEY FEATURES



### New generation advanced GNSS RTK engine

Shared with the same platform as the Hi-Target's most advanced GNSS engine, its flexible satellites signal management helps you get more accurate solution and provides 20 percent improved performance for position and heading in challenging GNSS environments.

### Enhance the Stability

Hi-Target Hi-Fix enables continuous connectivity and quality results even if you lose the signal while using the RTK base satation or VRS network so the scenarios have been greatly extended with stability enhancement.

### Standby power for harsh environment

3-hour duration power reserved in the receiver as a standby source to support the work in urgent cases when external power is unexpected suspended.

### **Easy Operation & Connection**

Status and operation can be easily done with the control panel in the front side while therea re plenty of physical port to output the required data at the rear side for different purposes.

# 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...





# **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.

### 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.

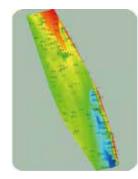
### - CHALLENGES:

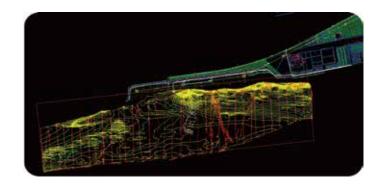
- ▶ 5 channels in total to cross, they all need to be surveyed.
- Each of them has heavy traffic, 3000 ton-level vessel transportation, daily 800 vessels pass by.

### - CHALLENGES:

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

### - RESULT SAMPLE:







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

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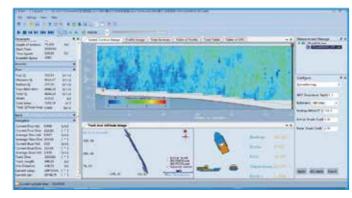
# **USV** Application

# iFlow RP600/1200

### 600kHz & 1200kHz Piston Acoustic Doppler Currnet Profiler

• Provides accurate measurement with a 75 meter range, the 600Hz frequency ADCP iFlow RP600 can be widely used for monitoring and surveying rivers, lakes, channels, etc. .

### - KEY FEATURES





Multiple Working Mode

and self-contained modes.

Easy to Use Software

The iFlow RP600 support vessel has

mounted, bottom-tracking, monitoring, DVL

Clear software working flow and UI lower the

learning curve, making it easy to use.

#### Long Profiling Range Multiple Cells. 600Hz working frequency extends the

current measurement range up to 75 meter with maximum 256 cells.

### Multiple Built-in Sensors

Integrating the gyro, temperature, pressure and tilting sensor, iFlow RP600 offers mutipule source of infomation for the operation reference.

#### High Precision Current Measurement

Supported by broadband signal processing technology, the anti-noise level has been improved while the current measurement accuracy can be up to 0.25%±0.25cm/s.

### **SPECIFICATIONS**

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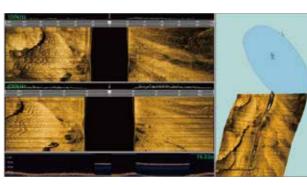
Hi-Target iFlow ADCP Specifcations	RP600	RP1200	
System Frenquency	600kHz	1200kHz	
Type of Transducer		Piston	
Beam	Janus 4 beams at 20° beam angle	4 Janus beams at 20° beam angle 1 vertical for depth measurement	
Velocity Range	Typical:±	5m/s,Max:±20m/s	
Velocity Profile Range	1-80m	0.2-25m	
Velocity Resolution	1 mm/s		
Cell Number & Cell Size	1-260 ; 0.1-4m	1-256 ; 0.1-2m	
Measurement Accuracy	0.25	5%±0.25cm/s	
Operation Mode	E	Broadband	
Bootom-track Range	0.8-90m	0.15-35m	
Internal Storage	8Gb(Standard), optional for 16Gb		
Built-in Sensors	Temperature, tilt (pitch and roll), compass and pressure		
Carrier	Three hulls trimaran float, or iBoat BS3 USV		

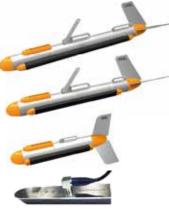
# iSide400/900P/1400/4900

### The Multiple frequencies Side Scan Sonar Systems

• With the possibility to switch freely between CW and CHIRP on multiple frequencies, at 100kHz, 400kHz or 900kHz, the iSide side scan sonar system provides a clearer view of the water bottom on dual simultaneous frequency, for object searching, dredging, and other industry applications.

### - KEY FEATURES







# Multiple Frequency Available

There are multiple frequencies available to use according to required applications. Users can always find a suitable mode.

#### Real-Time CW & CHIRP

Transmitting Mode Switching Real-time switching can provide adaptive solutions for you, which are with improved anti-noise performance, higher resolution and wider range.

### Multiple Internal Sensors

By integrating the sensor for heading, pitch, roll, depth and pressure, images are corrected in real time and related reference information can be acquired to ensure the safety of operation.

### TABLE COMPARISON

	iSide 1400	iSide 4900	iSide 400	iSide 900P	
Frequency & Pulse Type	100kHz&400kHz, LFM/CW	400kHz&900kHz, LFM/CW	400kHz, LFM/CW	900kHz, LFM/CW	
H. Beam Width	0.6°@150kHz, 0.2°@400kHz	0.2°@400kHz, 0.2°@900kHz	0.3°	0.3°	
V. Beam Width	50°				
Maximum Range	450m@100kHz, 150m@400kHz	150m@400kHz, 75m@900kHz	150m	75m	
Resolution Along	0.01R@100kHz, 0.003R@400kHz	0.003R@400kHz, 0.003R@900kHz	0.005R	0.005R	
Resolution Across	2.5cm@100kHz, 1.25cm@400kHz	1.25cm			
Sensor	Pitch, rool, yaw, pres	sure, depth	1	1	
Desktop Software	Hi-MAX SSS for operation and processing, support NMEA0183, OTSS and XTF data				

\*R means the operation range



Ultra Small Beam Angle

### Strong and Robust Tow Fish

Adopting a fluid mechanics design, the 316 stainless steel housing can help the tow fish endure even 1000m depths.

Beam angle can be up to 0.2°, providing

resolution up to 1.25cm, so it is easy to



# HISCAN-C SU1

### Fully Integrated Mobile Mapping Solution

• The HiScan-C is a fully integrated mobile mapping system with Hi-Target advanced 3D laser and geo-referencing digital imagery which has been proved to be a perfect solution when a massive amount of asset data needs to be collected in a short time.



- KEY FEATURES



# Mapping Solutions

With the development of the spatial information industry, the data acquisition method has made great progress, from single point to point cloud, from small-scale data to big data. Hi-Target is committed to providing the most reliable big data and image acquisition system and platform, as well as the efficient solutions to meet the needs of large area mapping.



# HISCAN-C SU1

Software

### HD Logging

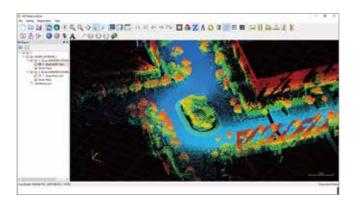
Plan and manage the field capture in a visible and much easier way.





### Construction and Civil Engineering

With high-speed laser scanning and high-resolution imaging technology, Hi-Target HiScan MMS make it more rapid than ever to collect enormous amounts of high-accurate, geo-referenced spatial data and transform them into information-rich 3D models.



### ► HD Data Combine

Easily fuse the data from multiple sensors and output geo-referenced point cloud with panoramic imagery in common data formats.

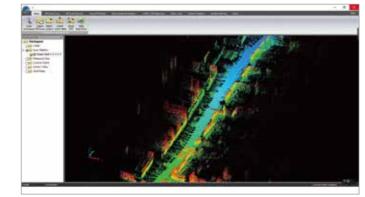
### Road and Railway \_\_\_\_

Combining the latest innovations in GNSS, optical, imaging and scanning technologies and supporting multiple carrier platforms, Hi-Target HiScan MMS enables you to quickly and accurately capture the data needed, providing actionable deliverables to maintain and construct road & railway infrastructure or to manage transport assets.



### ► HD 3LS Scene

View and edit point cloud data overlays with image to draw or extract features and send to your CAD or 3D modeling software.





## — Quarries and Mines

How to measure a wide range of sites efficiently and accurately with reasonable cost while enjoying the safety brought by non-contact cutting-edge technology? The ideal answer is Hi-Target HiScan MMS.

# **Smart Monitoring Solution**

# HDS102 Multi-dimensional Intelligent Sensor



# HDM100 Geotechnical Data Collector Terminal



Real-time updates Multiple inputs with Intelligent self-test with local storage extensions available and status report

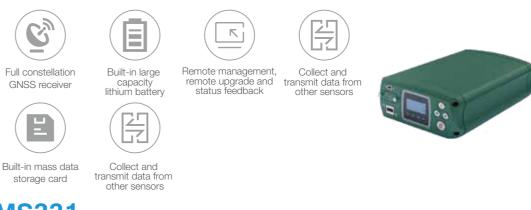
ent self-test Ultra-low power consumption with

long standby capabilities



Hardware

# MS302 Surface Displacement Monitoring GNSS Receiver



# MS331 One-piece Emergency Monitoring GNSS Receiver



signals with small storage that supports

integrated design continuous data storage

of up to 50 months



communication

Remote management, remote upgrade and status feedback



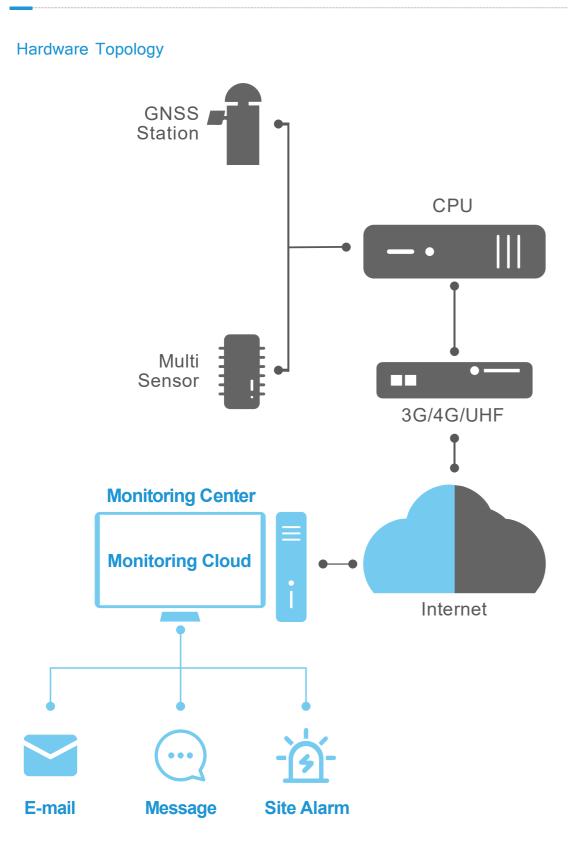
Freely switch to base Overcurrent and Data encryption Built-in hardware or rover with access overvoltage protection transmission to ensure watchdogto ensure from CORS network and IP67 information security continuous operation unattended

# **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.



# **Hi-Target Smart Monitoring Solution(HSMS)**



### -MONITORING SOFTWARE

Hi-Target Monitoring Cloud Platform is a very easy-to-use browser based (B/S) platform which is scalable and fully customizable for any specific needs from users, provides real-time and highly precise monitoring data inspection for natural, artificial or mining conditions.



The platform APP maximizes productivity with the possibility to manage projects anytime, anywhere.

- Remote multi-project overall management.
- Data synchrozing.
- Alarm notification and WAP push reminder.
- On-site inspection uploading.
- Monitoring data check and instrument management.



# Typical Application

- Landslide / Slope Monitoring
- Collapse Monitoring
- Debris Flow Monitoring
- Ground Settlement Monitoring
- Hydro project Monitoring (Dam / Reservoir)
- Bridge / Viaduct Monitoring
- Road / Highway Monitoring
- Building / Structure Health Monitoring
- Tunnel / Convergence Monitoring