PERFORMANCE SPECIFICATIONS

GNSS TECHNOLOGY

Satellite Signals Tracked Simultaneously[1]

Channels.....800+
GPS..... L1/L2/L5/L2C
GLONASS..... L1/L2/L3
BDS B1/B2/B3/B1C/B2a
Galileo..... E1/E5 AltBOC/E5a/E5b/E6
SBAS L1/L5
QZSS L1/L2/L5/L6
IRNSS L5
Global correction service..... Hi-RTP (optional)
Base/Rover.....interchangeable

POSITIONING PERFORMANCE

High-precision static GNSS Surveying

Horizontal ..... 2.5mm + 0.1ppm RMS
Vertical ..... 3.5mm + 0.4ppm RMS

Static and Fast Static

Horizontal.....2.5 mm + 0.5 ppm RMS
Vertical.....5 mm + 0.5 ppm RMS

Post Processing Kinematic (PPK / Stop & Go)

Horizontal..... 8mm+1ppm RMS
Vertical..... 15mm+1ppm RMS
Initialization time..... Typically 10 min for base and 5 min for rover
Initialization reliability..... Typically > 99.9%

Code Differential GNSS Positioning

Horizontal..... 25cm+1ppm RMS
Vertical..... 50cm+1ppm RMS
SBAS..... 0.5m(H), 0.85m(V)

Real Time Kinematic (RTK)Single Baseline

Horizontal..... 8mm+1ppm RMS
Vertical ..... 15mm+1ppm RMS

Network RTK(VRS, FKP, MAC)

Horizontal..... 8mm+0.5ppm RMS
Vertical .....15mm+0.5ppm RMS
Initialization time.....2-10s
Initialization reliability.....Typically >99.99%

Hi-Fix[2]

Horizontal.....RTK + 10 mm/minute RMS
Vertical.....RTK + 20 mm/minute RMS

Tilt Survey Performance

Additional horizontal pole-tilt uncertainty typically less than 8mm +0.7mm / °tilt (2.5cm accuracy in the inclination of 60°)

HARDWARE

Communication

Bluetooth 4.2/2.1+EDR, 2.4GHz
Network Communication:
4G cellular mobile network (TDD-LTE, FDD-LTE, WCDMA, EDGE, GPRS, GSM)
WiFi frequency is 2.4G, support 802.11b/g/n protocol.

Internal UHF Radio

Frequency..... 403-473MHz
Channels ..... 116 (16 scalable)
Transmitting power..... 1~4W Hi-Target Advanced Radio
Supports multiple protocols: HI-TARGET, TRIMTALK450S, TRIMMARK III, TRANSEOT, SATEL-3AS, etc.
Working Range .....Typically 3~5km, optimal 5~8km

External UHF Radio

External HDL460A Full Protocols Radio
Frequency..... .....403-473MHz
Channel .... 116 (16 scalable)
Transmitting power ....10W/35W adjustable
Protocols: HI-TARGET, TRIMTALK450S, TRIMMARK III, TRANSEOT, etc.
Working Range ....Typically 8~10km, optimal 15~20km

Data Formats

Output Rate 1Hz-20Hz
Static data format ..... GNS, Rinex
Network model .....VRS, FKP, MAC; supports NTRIP protocol
CMR& RTCM: CMR, RTCM 2.x, RTCM 3.0, RTCM 3.2
Navigation Outputs ASCII NMEA-0183

PHYSICAL

Internal Battery

Internal 7.4V/6800mAh lithium-ion rechargeable battery.
Charging: supports USB PD3.0quick charge, Quick charge within 3.5 hours.
RTK Rover (Network) for 10 hours.

External Power

7-28V DC external power input (5-pin port) with over-discharge protection
Power Consumption..... 4.2W
Support Power Bank charging.
Dimensions(W×H)..... 156mm×77mm
Weight ..... ≤1.2kg (includes battery)
Data storage..... 8GB ROM internal storage

Control Panel

Physical Button 2
LED Lamp ..... Satellite, Signal

Environment

Water/Dustproof IP68
Shock and Vibration..... Designed to survive a 2m natural fall onto concrete
Humidity ..... 100%, condensing
Operation Temperature ..... -30℃~+70℃
Storage Temperature ..... -40℃~+80℃

I/O Interface

1 × USB port, Type C, OTG function
1 × SMA antenna connector
1 × DC power input (5-pin)
1 × Nano SIM card slot

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*Description and Specifications are subject to change without notice.

1.Compliant, but subject to availability of IRNSS and Galileo commercial service definition. IRNSS L5 and Galileo E6 will be provided through future product upgrade.

2. Accuracies are dependent on GNSS satellite availability. Hi-Fix positioning ends after 5 minutes of radio downtime. Hi-Fix is not available in all regions, check with your local sales representative for more information.

AUTHORIZED DISTRIBUTION PARTNER

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CE IP68

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Hi-Target
Surveying the World,Mapping the Future

iRTK4

A Simple but not Simplistic GNSS System

iRTK4 GNSS RTK SYSTEM

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 FUNCTIONS

Advanced RTK engine

Flexible Satellites signal management helps you to get a more accurate solution and provides a 20 percent 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 per cent, with error that is less than 3cm within a 60° 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

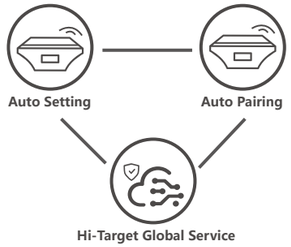
It is a fast and efficient way to monitor and control hardware devices, offering accesses to the most commonly-used features via the existing web browser on your device, so there is no need to download or install any other software.

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.



Features

iHand55

5.5″ sunlight readable display capacitive touch screen for fingers or stylus.

Alphanumeric full keyboard designed, convenient for different measurement application scenarios.

Quick charge with internal lithium battery to improve efficiency under long time job.

Android 10.0 operating system equipped to maintain the productivity of numerous survey projects and data.

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.

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.

HBC

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 users to finish the joint operations of multiple pieces of equipment in projects more easily, enabling users 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.