

# vRTK

the New IMU GNSS RTK with  
Visual Positioning Technology





# vRTK

**Pocket-sized RTK comes with brand new image positioning technology.**

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

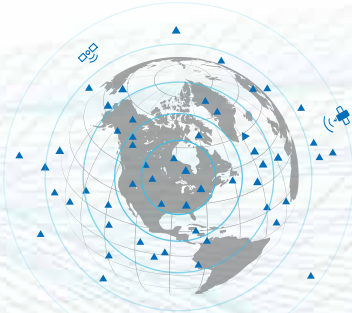
### Image Positioning Technology

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

# Groundbreaking GNSS System

Innovative integration of vision and surveying

## The perfect partner for vRTK

Combined with the Hi-Survey Road software and the iHand55 large-screen handheld controller, vRTK achieves even better performance on measurement and field survey. The guaranteed compatibility allows users to apply the survey data from the vRTK to 3D modeling softwares or the Hi-Target Business Center for quick and easy data post processing.



## SPECIFICATIONS

### Channel

1408/800+(optional)

### Tilt Survey Accuracy

8mm+0.7mm/°tilt

### Image Stakeout Accuracy

2cm

### Image Survey Accuracy

2cm ~ 4cm

### Size

Φ130mm×79mm

### Weight

≤0.97kg

### Satellite Tracking

BDS/ GPS/ GLONASS/  
GALILEO/ QZSS/ IRNSS/  
SBAS

### Data Storage

Built-in 8GB ROM

### Hi-Fix

H: RTK+10mm / minute RMS  
V: RTK+20mm / minute RMS

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





# 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.

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



# 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..



AUTHORIZED DISTRIBUTION PARTNER

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