### **PERFORMANCE SPECIFICATIONS**

<b>Satellite Signals</b>	<b>Tracked</b>	Simultaneously	<b>y</b> 1
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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
NavlC (IRNSS)	L5
Global correction service	Hi-RTP (optional)
Base and Rover	Interchangeable

## **Positioning Performance**

#### **High-precision static GNSS Surveying**

Horizontal	2.5mm + 0.1ppm RIVIS
Vertical	3.5mm + 0.4ppm RMS
Static and Fast Static	
Horizontal	2.5 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)

#### **Network RTK**

Vertical.

Horizontal	8mm+0.5ppm RMS
Vertical	15mm+0.5ppm RMS
Initialization time	Typically 2-10s
Initialization reliability	Typically > 99.9%
D   T'   ('	

#### Real Time Kinematic (RTK)

Horizontal	8mm+1ppm RMS
Vertical1	5mm+1ppm RMS

#### Hi-Fix<sup>2</sup>

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

#### **Tilt Survey**

**Electronic Bubble / tilt survey 2.0** 

#### **Tilt Survey Performance**

5cm accuracy in the inclination of 30°

#### Communication **Internal UHF Radio**

Frequency	403-473MHz
Channels	116 (16 adjustable)

Transmitting power	1W/2W/4W adjustable	,
Supports multiple protocols: HI-TARGET, T	RIMTALK450S, TRIMMARK III,	
TRANSEOT, SATEL-3AS, etc.		

Working range	3-5km	ı typical,	5-8km	optima
Evtornal LIME Padio				

Aterriar Orri Nauro	
requency	410-470MHz
Thannels	8
ransmitting power	5W/25W adjustable

Supports multiple protocols: TRIMTALK450S, TRIMMARK III, TRANSEOT

#### **Network Communication**

Bluetooth	4.0/2.1+EDR, 2.4GHz
4G Network	. TDD-LTE, FDD-LTE, WCDMA, EDGE, GPRS, GSM
Wi-Fi frequency	2.4GHz
Wi-Fi protocol	802 11h/a/n

#### **Power Supply**

#### **Internal Battery**

5000mAh lithium-ion rechargeable and removable battery RTK Rover (UHF/Cellular) for 10 hours

#### **External Power**

6-28V DC external power input (5-pin port) with over-charge protection
Power consumption

#### **Physical**

...5 mm + 0.5 ppm RMS

Dimensions(W×H)	164mm×83.5mm
Weight	≤1.4kg (includes battery)
Data storage	8G internal storage

#### I/O Interface

- 1 × Mini USB port
- 1 × TNC antenna connector
- 1 × DC power input (5-pin)
- 1 × SIM card slot

#### **Control Panel**

Priysical buttori	I
LED lampSatellit	e, Signal, Power

#### **Environment**

water/Dustproor	IF0/
Shock and vibration	. Survive from 2m natural fall on to ground
Humidity	100% condensing
Operation temperature	-45°C~+75°C
Storage temperature	

#### **Data Formats**

Output rate	1-20ПZ
Static data format	GNS, Rinex
Network model	VRS, supports NTRIP protocol
Message type	CMR, RTCM 2.x, RTCM 3.0, RTCM 3.2
Navigation outputs ASCII	NMEA-0183

Hi-Target Surveying Instrument Co., Ltd

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<sup>2.</sup> 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





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<sup>\*</sup>Description and Specifications are subject to change without notice.

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

## V30 PLUS

#### **GNSS RTK SYSTEM**

With its built-in multi-constellation GNSS engine, smaller dimension, and industrial-grade compact design, V30Plus provides a flexible GNSS work solution. It also integrates with the WebUI, WIFI, Bluetooth and 4G module to make data management and transmission more convenient and faster. Accompanied by Hi-Target professional field surveying software and its up-to-10-hours working time, V30Plus meets users' needs of efficient and convenient surveying experience.



 $83.5_{\text{mm}} / \frac{164_{\text{mm}}}{1200_{\text{g}}} / \frac{1200_{\text{g}}}{1200_{\text{g}}}$ 



#### **Multi-Constellation GNSS Engine**

- Tracking full-constellation satellites to achieve accurate and stable positioning accuracy.
- Provides reliable results in harsh environments with its unique GNSS positioning algorithm.



#### **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.

## **Full-frequency air antenna**

- Stable and better noise resistance full-wave GNSS antenna.
- Supports a wide range of satellite tracking signals.
- Reduce the multipath effect influence.

## **Smart application**

- Built-in Linux system and 8G storage.
- Intelligent management of the static data.
- Intelligent voice assistant to guide field operations.
- Standard Rinex data and Hi-Target raw data recorded simultaneously.



#### **Data communication**

- Compatible with other vendors' communication protocols.
- · Long transmission distance, and good electromagnetic compatibility.
- Perfectly compatible with a variety of CORS systems.



## 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**



Ergonomically designed, lighter and easy to hold.



Industrial-grade protection that can withstand tough environments.



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



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

Hardware Configuration	OS: Android 10 Processer: CPU: 8 core; 2.0 GHZ Storage: 2 GB RAM+16 GB ROM; T-Flash memory card, up to 1286B 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 WiF::IEEE 802.11 b/g/n, Wapi, AP Bluetooth:Built-in Bluetooth (2.1+4.0) NFC USB:USB, TypeC interface, 0TG
Physical	Weight:480g(within battery) Size: 236 mm*85 mm*25 mm Operating temperature:-20C ~+60C Storage temperature: -30C ~+70C Free fall:1.2 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

**KEY FEATURES** —



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.













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



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



Strong interaction function to empower every surveyor.

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