

PERFORMANCE SPECIFICATIONS

Satellite Signals Tracked Simultaneously

Channels.....	336
GPS.....	L1C/A, L2E, L2C, L5
BeiDou.....	B1, B2, B3 ¹
GLONASS.....	L1C/A, L2C/A, L3 CDMA ²
Galileo ³	E1, E5A, E5B, E5AltBOC, E6 ²
IRNSS.....	L5
SBAS.....	L1C/A, L5(QZSS, WAAS, MSAS, GAGAN, EGNOS)
Global correction service.....	Hi-RTP (optional)

POSITIONING PERFORMANCE

High-Precision Static

Horizontal.....	2.5 mm + 0.1 ppm RMS
Vertical.....	3.5 mm + 0.4 ppm 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.....	Typically 2-10s
Initialization reliability.....	Typically > 99.99%

HARDWARE

Physical

Dimensions (W x H).....	158mm x 98mm (6.22inch x 3.86inch)
Weight.....	lighter than 1.2kg (2.65lb) within internal battery
Operation temperature.....	-40°C~+75°C (-40°F~+167°F)
Storage temperature.....	-50°C~+85°C (-58°F~+185°F)
Temperature control.....	Auto-adjust the working power to maintain the temperature
Humidity.....	100%, condensing
Water/dustproof.....	IP67 dustproof, protected from temporary immersion to depth of 1m (3.28ft)

- 1.The hardware of this product is designed for Beidou B3 compatibility (trial version) and its firmware will be enhanced to fully support such new signals as soon as the officially published signal interface control documentation (ICD) becomes available.
 - 2.There is no public GLONASS L3 CDMA or Galileo E6 ICD. The current capability in the receivers is based on publicly available information. As such, Trimble cannot guarantee that these receivers will be fully compatible.
 - 3.Developed under a License of the European Union and the European Space Agency.
 - 4.Input only network correction.
- Descriptions and Specifications are subject to change without notice

Shock and vibration.....	MIL-STD-810G, 514.6
Anti-salt spray.....	MIL-STD-810G, 509.4, 96h
Free fall.....	MIL-STD-810G, 516.6, designed to survive a 2m(6.56ft) natural fall onto concrete

Electrical

6V to 28V DC external power input(5-pin port), with over-discharge protection power consumption 4.4W Automatic switching between internal power and external power

Control Panel

Physical button.....	1
Display.....	240 x 240 pixel, 261ppi
Touchscreen.....	Support glove mode and wet-finger mode

Internal Battery

7.4V, 6800mAh lithium-ion rechargeable and removable battery.
RTK rover(UHF/Cellular) for 10 hours.
Power indicator embedded.
Quick charge within 3.5 hours.

I/O Interface

Bluetooth 4.0/2.1+ EDR, 2.4 GHz. USB 2.0 port with OTG function. 1 SMA antenna connector. 1 DC power input(5-pin). 1 SIM card slot
Near Field Communication(NFC)

Communication

Network Communication

Full band support for cellular mobile network(LTE, WCDMA, EDGE, GPRS, GSM). Wi-Fi frequency is 2.4G, supports the standard protocol 802.11 b/g/n. Network RTK(in CORS) range is 20-50km.

Internal UHF Transceiver Radio

Frequency.....	403~473MHz
Transmitting power.....	0.1W~1W (Satel), 1~4W(Hi-Target Advanced Radio)
Supports most of the radio protocols	
Working Range.....	Typically 3~5km, optimal 5~8km

External UHF Radio

Frequency.....	410~470MHz
Transmitting power.....	5W / 25W
Compatible with third party radio	
Working Range.....	Typically 8~10km, optimal 15~20km

SYSTEM CONFIGURATION

System

Data storage.....	Circulating 16GB Internal storage Record GNS and RINEX format simultaneously
-------------------	---

Data Formats

1Hz positioning output, up to 50Hz. CMR, RTCM2.X, RTCM3.0, RTCM3.1, RTCM3.2¹.
Navigation outputs ASCII: NMEA-0183 GSV, AVR, RMC, HDT, VGK, VHD, ROT, GGG, GGA, GSA, ZDA, VTG, GST, PJT, PJK, BPO, GLL, GRS, GBS. Binary: Trimble GSOF, NMEA2000

HI-TARGET

Surveying the World, Mapping the Future

iRTK5

GNSS RTK SYSTEM



Website Facebook

AUTHORIZED DISTRIBUTION PARTNER

195120

Hi-Target Surveying Instrument Co., Ltd.

Address: Building 13, Tian'An Technology Zone, No. 555, Panyu North Rd., Panyu District, Guangzhou, China (511400)

TEL: +86-20-2288 3944 E-mail: info@hi-target.com.cn www.hi-target.com.cn

CE IP67

MIL-STD 810G

2019 Hi-Target Surveying Instrument Co., Ltd. All rights reserved.



iRTK 5 GNSS RTK SYSTEM

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

The Next-generation GNSS Engine



Next-generation GNSS Engine with Full-wave Antenna

With the full-wave newly designed GNSS antenna and the hugely improved next-generation GNSS engine, it support GPS, GLONASS, BDS, GALILEO, QZSS and other SBAS by 336 tracking channels. The initialization speed and anti-noise performance have been enhanced. It provides advanced algorithms for multipath mitigation.



Hi-RTP™ Global PPP Service

The correction source has been extended by Hi-RTP™ global correction service provided by Hi-Target. Enabling users to work without a base-station in rural or remote areas anywhere in the world.

Unlimited Communication



Extending the Communication Range

By sharing the correction message from base via radio or CORS via internet, other rovers working range can be extended hugely.



360° Omni-direction Wireless Radio Antenna

The top mounted radio antenna extends the radio range and enables full omnidirectional communications.

Innovative Design



Innovative Design

- Electronic bubble
- Tilt survey



Waterproof Touchscreen



Power Indicator



3rd Party Software



Web UI

Hi-Survey Software



Brand new UI, easier to understand and use



Professional programs in road application such as side slope settingout, DTM stakingout etc



Basemap from online maps, DXF and SHP data



iHand30

- Android 6.0
- Type C USB port
- 1.5GHz 64-bit CPU, 2G RAM, 16G Internal Storage
- WiFi & Cellular simultaneous working
- IP 67

Hardware Configuration	Communication Interface	Physical Features
OS: Android 6.0 Processor: MTK6737, 1.5GHz, 4 core RAM: 2G Storage: 16GB(up to 128GB external storage) Display: 3.7", 640 x 480, sunlight readable Camera: 8MP, tag available Sensors: G-sensor, E-compass, barometer light-field sensor, gyro	Cellular mode: Dual SIM card, dual stand-by Cellular network: 4G TDD-LTE, FDD-LTE, WCDMA, GPRS Wi-Fi: IEEE 802.11b/g/n, 2.4GHz/5GHz Bluetooth: V2.0/4.0 USB: Type-C, supports OTG NFC	Weight: 440g(within battery) Size: 208mm*83mm*24mm Operating temperature: -20°C ~ +60°C Storage temperature: -30°C ~ +70°C Free fall: 1.2m IP67
GNSS Features	Power Supply	
GNSS: GPS, GLONASS, AGPS, 20 channels Update rate: 1Hz	Battery: Removable 3.7V lithium battery, 5200mAh Duration: 15 hours Quick charge within 3 hours	