PERFORMANCE SPECIFICATIONS

Satellite Signals Tracked Simultaneously

Channels..... 336
GPS..... L1C/A,L2E,L2C,L5
BeiDou..... B1, B2, B3[1]
GLONASS..... L1C/A, L1P, L2C/A, L3 CDMA[2]
Galileo[3]..... E1, E5A, E5B, E5AltBOC, E6[2]
IRNSS..... L5
SBAS..... L1C/A,L5(QZSS,WAAS,MSAS,GAGAN)
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%

Hi-FILL[5]

Horizontal..... RTK[6]+ 10 mm/minute RMS
Vertical..... RTK[6]+ 20 mm/minute RMS

Tilt Survey Performance

2cm accuracy in the inclination of 30 degree

HARDWARE

Physical

Dimensions (W x H)..... 158mm x 98mm (6.22inch x 3.86inch)
Weight..... lighter than 1.3kg (2.65lb) within internal battery
Operation temperature..... -40℃~+75℃ (-40℉~+167℉)
Storage temperature..... -50℃~+85℃ (-58℉~+185℉)
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)
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). 2.4GHz Wi-Fi, 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..... 1~4W Hi-Target Advanced Radio
Supports protocols: HI-TARGET, TRIMTALK450S, TRIMMARK III, SATEL-3AS, TRANSEOT, etc.
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, CMR+, RTCM2.X, RTCM3.0, RTCM3.1, RTCM3.2. Navigation outputs ASCII: NMEA-0183 GSV, AVR, RMC, HDT, VGK, VHD, ROT, GGK, GGA, GSA, ZDA, VTG, GST, PJT, PJK, BPQ, GLL, GRS, GBS. Binary: Trimble GSOF, NMEA2000

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.
3.Developed under a License of the European Union and the European Space Agency.
4.Input only network correction.
5.Accuracies are dependent on GNSS satellite availability. Hi-Fill positioning ends after 5 minutes of radio downtime. Hi-Fill is not available in all regions, check with your local sales representative for more information.
6.RTK refers to the last reported precision before the correction source was lost and Hi-Fill started.
Descriptions and Specifications are subject to change without notice

Website Facebook

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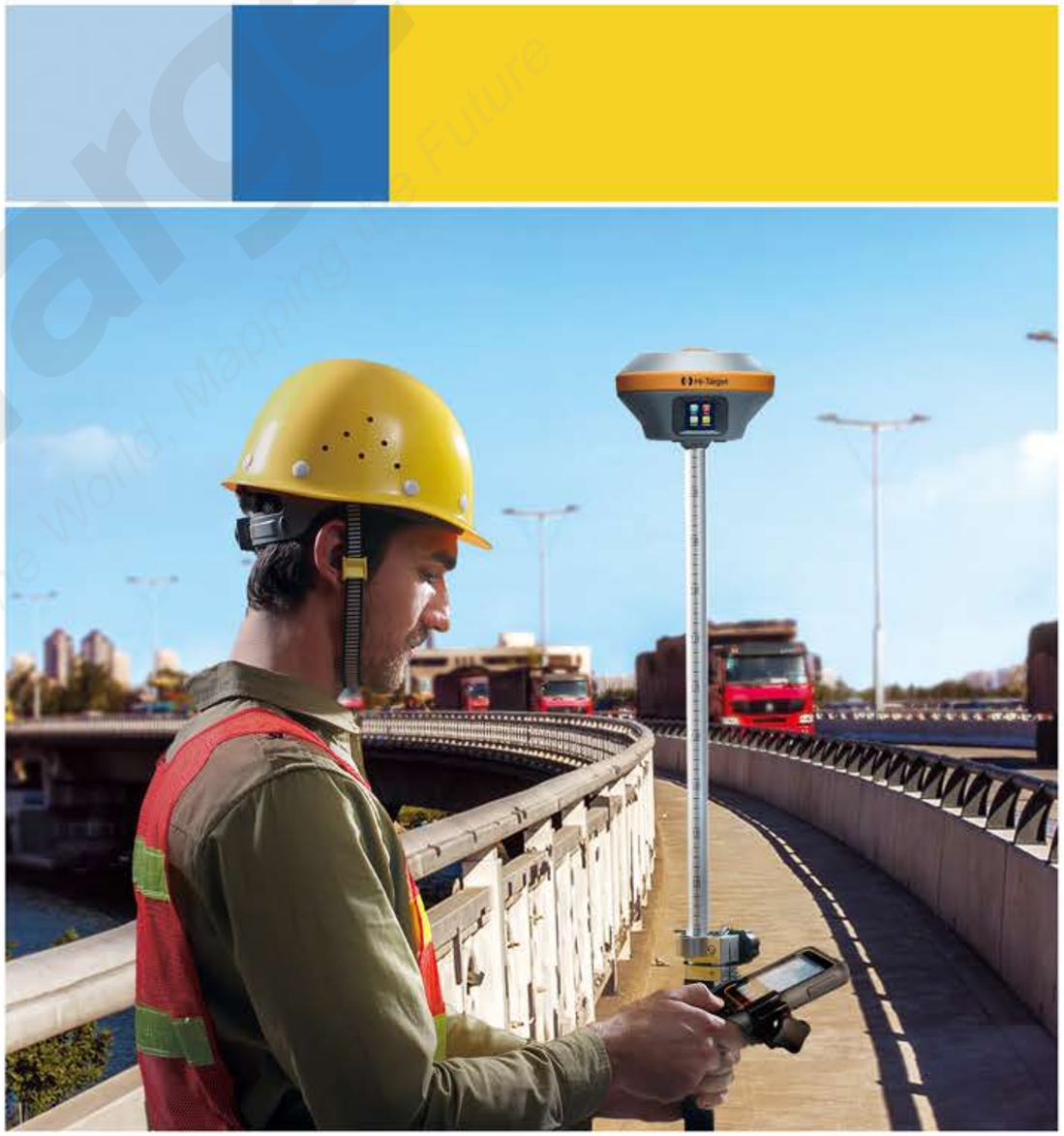
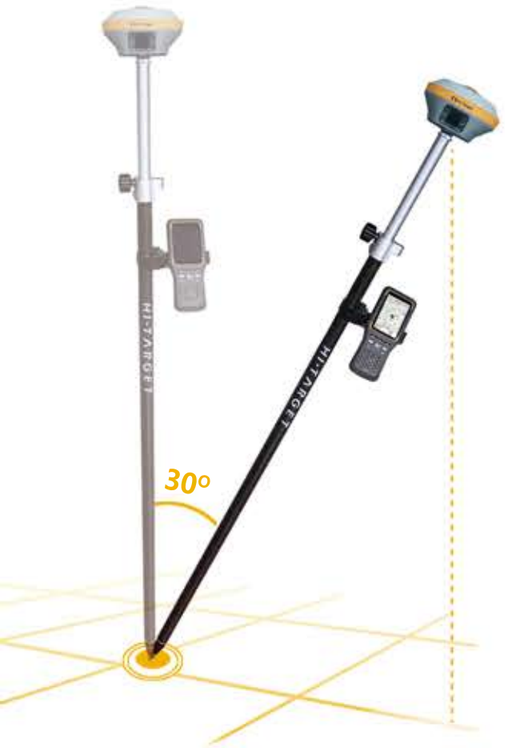
Hi-Target
Surveying the World, Mapping the Future

iRTK5 New

GNSS RTK SYSTEM



CE IP67 MIL-STD 810G



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.

Hi-RTP™ Global PPP Service

220+

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.
-Provide centimeter-level global precision
-Harness all constellation signals from BDS, GLONASS, GPS, GALILEO
-More than 220 reference stations
-L band satellite radio/ internet broadcast

Hi-Fill Technology

Reduce downtime in the field with continuous RTK coverage during correction outages from an RTK base station or VRS network.

Unlimited Communication

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 transmitting and receiving distance more than 20% longer. Multi-protocol radio, support Hi-Target, TRIMTALK450S, TRIMMARK III, TRANSEOT, SATEL-3AS, etc.

Revolutionary Tilt Survey with Built-in IMU

Customer benefit from calibration free for tilt survey without centering. Once you reach the surveying points, immediately start the operation. Compared with bubble leveling, boost working efficiency by 20%.

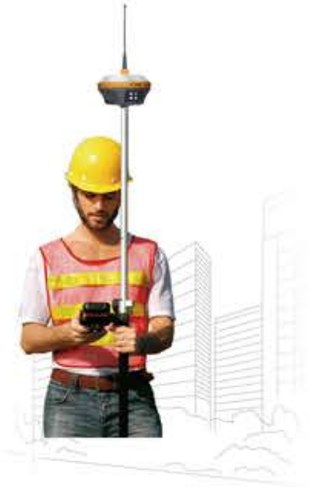
Error less than 2 cm within 30° inclination

Resistance to the interference of magnetic disturbances, ensure high accuracy.

Innovative Design

Reddot design award

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 slop settingout, DTM stakingout etc

Basemap from online maps, DXF and SHP data

P8 II

Handheld Controller

- Android 6.0
- Type C USB port
- 8 cores, 2.0GHz, 3G RAM, 32G Internal storage and compatible with up to 128GB detachable TF card.
- WiFi & Cellular simultaneous working
- IP 67