PERFORMANCE SPECIFICATIONS

Satellite Signals Tracked Simultaneously

Channels.. 800+
GPS... L1C/A,L2E,L2P,L5
BeiDou.. B1, B2, B3
GLONASS................................ L1C/A, L1P, L2C/A,L2P, L3 L5 CDMA[1]
Galileo [3] .... E1, E5A, E5B, E5AltBOC, E6 [2]
QZSS [3] L1C/A,L1C,L2C,L5,L6
IRNSS... L5
SBAS.. L1C/A,L5(QZSS,WAAS,MSAS,GAGAN)
Global correction service............................ Hi-RTP/RTX (optional)
GNSS RTK Base/Rover... (Interchangeable)

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-Fix[5]
Horizontal..RTK + 10 mm/minute RMS
Vertical...RTK[6]+ 20 mm/minute RMS

Tilt Survey Performance
Additional horizontal pole-tilt uncertainty typically less than [6]
10 mm +0.7 mm / °tilt (2cm accuracy in the inclination of 30°
under good condition)

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.
Static more than 12 hours.
RTK Rover(UHF/Cellular/GPRS/3G,4G) 10 hours.
RTK Base more than 8 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(3G,4G,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.. (Optimal) Typically 10~25km,
(With obstruction) Typically 5~8km

External UHF Radio
Frequency.. 410~470MHz
Transmitting power.. 35W
Compatible with third party radio
Working Range.. Typically 20~50km

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, RTCM3.2 .
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-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.

6.RTK refers to the last reported precision before the correction source was lost and Hi-Fix started.

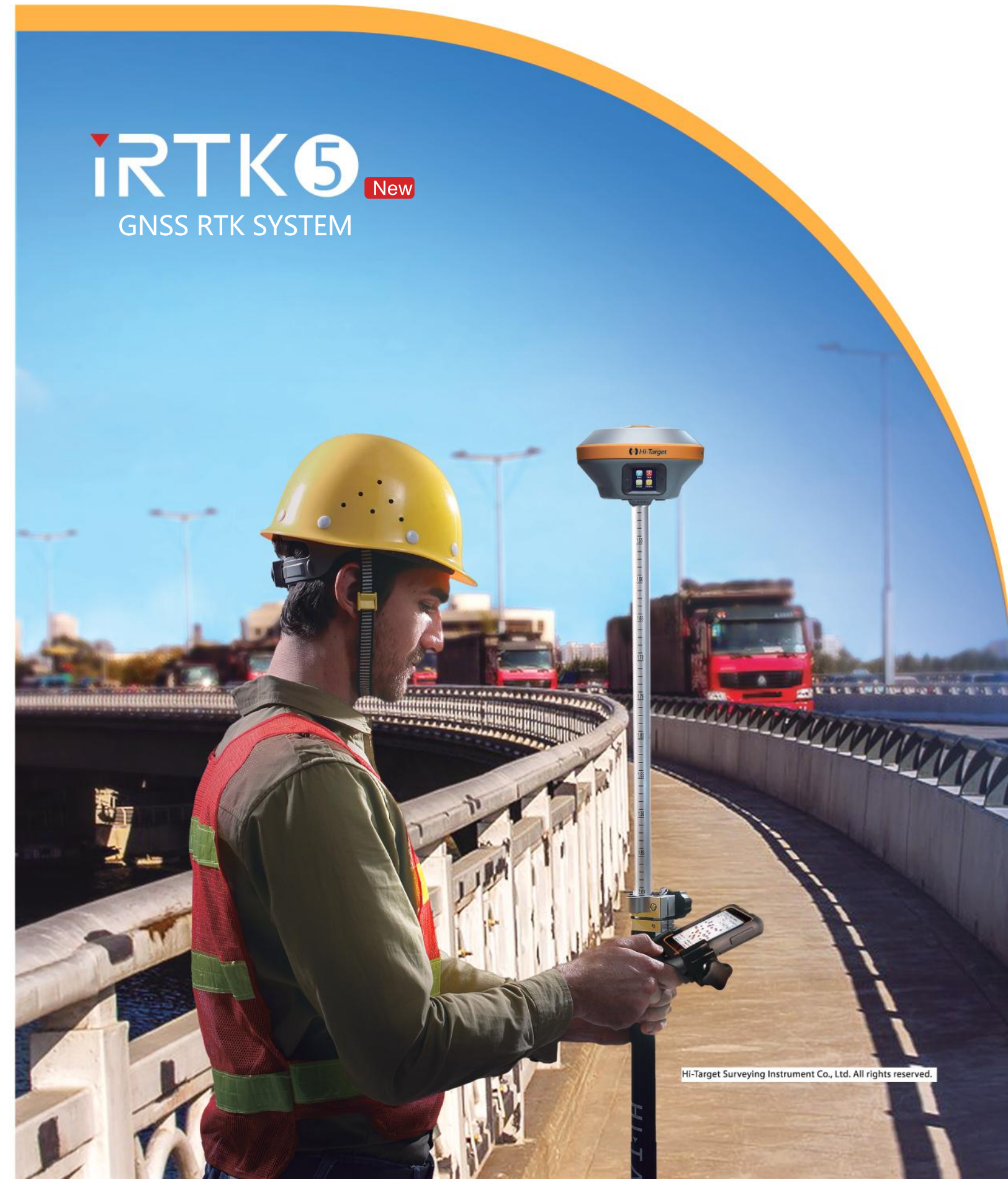Descriptions and Specifications are subject to change without notice

iRTK5 New
GNSS RTK SYSTEM

AUTHORIZED DISTRIBUTION PARTNER

21J302

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IP67 MIL-STD 810G

iRTK5 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.

Next-Generation GNSS Engine
With the full-wave GNSS antenna and the next-generation GNSS engine, it supports full constellation by 800+ tracking channels, enhanced initialization speed and anti-noise performance.

Hi-RTP™ Global PPP Service
The Hi-Target Hi-RTP™ global correction service extends the correction source, enabling users to work in rural or remote areas in the world without a base station, getting rid of range restrictions. It can harness all constellation signals from BDS, GLONASS, GPS, GALILEO with global distribution of 220+ stations, providing centimeter-level positioning accuracy.

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.

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 distance of data transmitting and receiving extend to 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%.

less than 2 cm within 30° under good condition

Resistance to the interference of magnetic disturbances, en-sure 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

Qmini A10

- Android 8.1 GMS certified
- Type C USB port
- 2.0GHz, 8 core high-speed processor
- RAM 6GB, ROM 64GB, supports 128GB T-Flash card
- 5.5 inches outdoor FHD screen,Corning Gorilla Glass 3