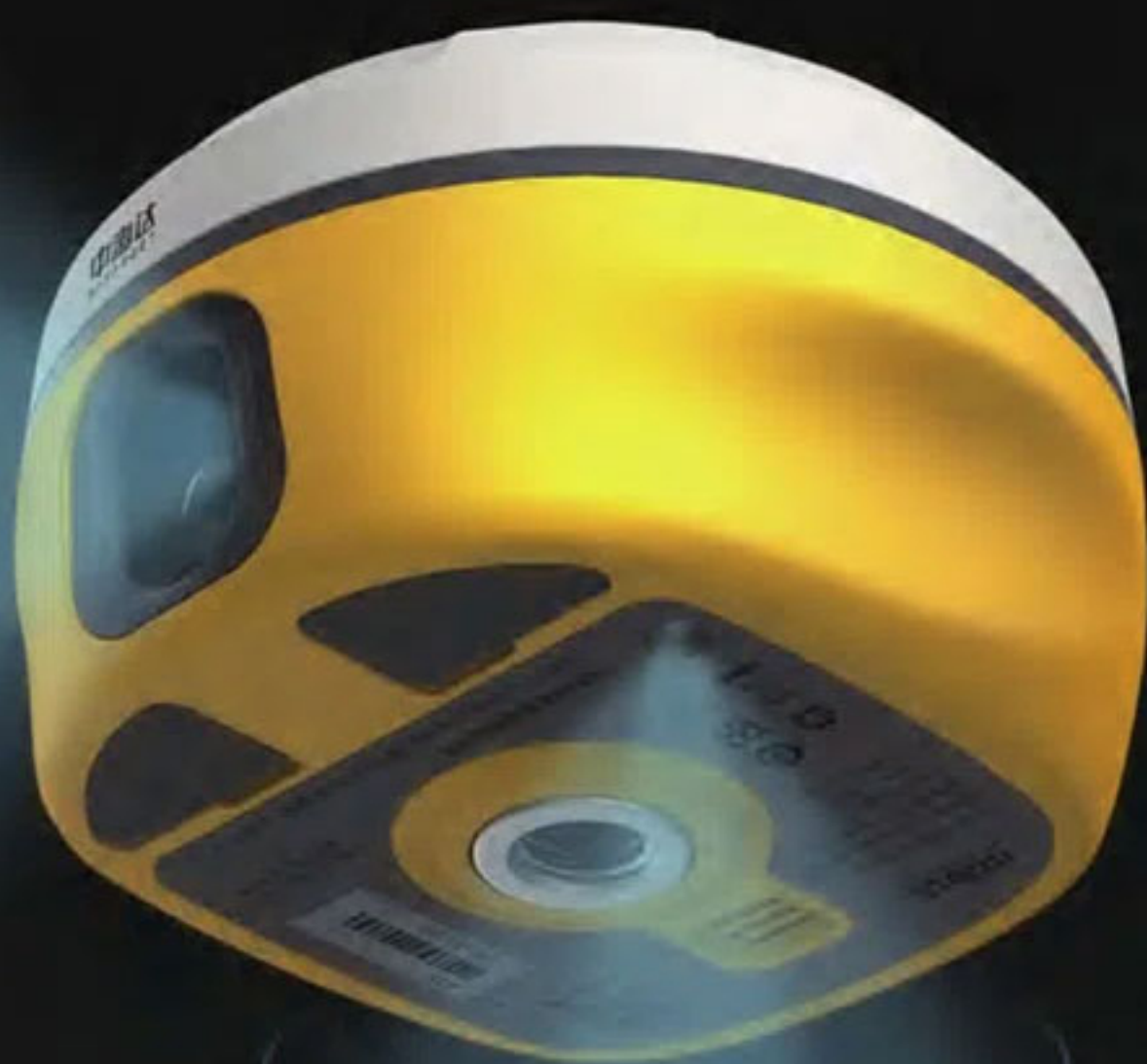


V5

Image disc, measurement + sample

One step at a time.



China Oceanwide
HI-TARGET

Stock code: 300177

Gnss configuration

- **Number of channels: 1408**
- **satellite tracking: bds: b1l, b2i, b3i, b1c, b2a, b2b**
 - GPS : L1C/A, L1C, L2P(Y), L2C, L5
 - GLONASS : L1, L2
 - GALILEO : E1, E5a, E5b, E6
 - QZSS : L1, L2, L5, L6*
 - IRNSS : L5
 - SBAS : L1, L2, L5
 - L-BAND
- **output grids: ascii: nmea-0183, binary code**
- **fixed slot output frequency: 1hz~20hz**
- Static data format: gns, rinex dual format static data
- **differential grids format: rcm2.x, rcm3.x**
- **network mode: vrs, fkp, mac; supports ntrip protocol**

System configuration

- **operating system: linux operating system**
- **data storage: built-in 8gbrom, supports automatic cyclic storage of static data**

Accuracy and reliability [2]

- Rtk positioning accuracy: planar: $\pm(8 + 1 \times 10^{-6} d)$ mm (where d is the distance between measured points)
- Elevation: $\pm(15 + 1 \times 10^{-6} d)$ mm (d is the distance between the measured points)
- Static positioning accuracy: plane: $\pm(2.5 + 0.5 \times 10^{-6} d)$ mm (where d is the distance between measured points)
- Elevation: $\pm(5 + 0.5 \times 10^{-6} d)$ mm (d is the distance between the measured points)
- Dgps positioning accuracy: horizontal accuracy: $\pm 0.25m + 1ppm$; vertical accuracy: $\pm 0.50m + 1ppm$
- Sbas positioning accuracy: 0.5 meters**
- **inclination measurement accuracy 3: 8mm+0.7mm/ ° Tilt**
- **image lofting accuracy: typical accuracy: 1cm**
- **image measurement accuracy: 2cm~4cm**
- **initialization time: <10 seconds**
- **initialization reliability: >99.99%**
- **resume survey at breakpoint: rtk surveying is still provided during the differential signal interruption**

Camera

- **pixels: professional dual hd camera, 2mp&5mp**
- Functionality: supports real-time positioning and image-based measurement, with an operating range of 2 to 15 meters

Communication unit

- **/o port: usbtypec interface; sma interface**
- **cellular mobile: built-in esim card: includes 3 years of data, high precision upon startup**
- Built-in 4g network communication: tdd-lte, fdd-lte, wcdma, td-scdma
- EDGE, GPRS, GSM
- **wifi communication: 802.11b/g access point and client mode, can provide wifi hotspot service**
- **bluetooth communication: bluetooth4.0/2.1+edr, 2.4ghz**
- **built-in full protocol radio: power: 0.5w/1w/2w adjustable**
 - Frequency band: 410mhz~470mhz
 - Protocols: hi-target, trintalk450s, trimmarkii
 - TRANSEOT, SOUTH, CHC, SATEL
 - Number of channels: 116 channels (16 of which can be configured)
- **hdl460a radio station: power: 10w/30w adjustable, frequency band: 403~473mhz**
 - Protocols: hi-target, trintalk450s, trimmarkiii
 - TRANSEOT, SOUTH, CHC, SATEL
 - Number of channels: 116 channels (16 of which can be configured)
 - Transmission rate: 19.2kbps, 9.6kbps adjustable

Sensor

Electronic bubble level: achieve smart alignment

·inclination measurement: built-in high-precision inertial guidance, automatic attitude compensation

User interface

·Button: single button

Led indicator lights: satellite light, signal light, power light

Functional application

·advanced functions: nfc flash link, webui interaction, u disk firmware upgrade

·smart application: intelligent voice, functional self-test

·remote service: message push, online upgrade, remote control

·cloud services: device management, location services, collaborative operations, data analysis

Physical properties

·host battery: high capacity lithium battery 7000mah, working time more than 24 hours 4

·external power supply: usb15w charging

·size: ϕ 130mm×80mm

·weight: \leq 0.97kg

·material: shell is made of magnesium alloy material

Environmental characteristics

·**dustproof waterproof: ip68**

·anti-fall: resistant to 2m high measuring rods falling naturally

·**relative humidity: 100% non-condensing**

·**working temperature: -45 ° ~+75 °**

·storage temperature: -55 ° ~+85 °

Note

[1]qzssl6, available through firmware upgrade.

Measurement accuracy, precision, reliability, and initialization time depend on various factors, including tilt angle, number of satellites, geometry, observation time, atmospheric conditions, and multipath interference. these data are derived under normal operating conditions.

[3] improper operations such as rapid rotation and high-intensity vibration may affect the accuracy of inertial navigation. [4] battery working time is related to the working environment, working temperature and battery life.

V5

Image measuring system

Professional dual-camera: measure and stake out in one go

1. non-contact measurement greatly improves the range of gnss availability and makes operations efficient and secure
2. based on android, high-performance image processing technology, it can obtain coordinates in real time with a thin hand, with an operating distance of 2-15m and an accuracy of 2-4cm
3. seamlessly switch between handheld 360° ar positioning and host computer image positioning for immersive positioning. experience fast and accurate positioning with an accuracy exceeding 1cm

Full constellation and full frequency band strong signal and good data

1. next-generation gnss soc chip, featuring 1408 channels, supports beidou-3 satellite's new b1c, b2a, and b2b rtk solutions
2. employs multi-frequency anti-interference technology and multi-step adaptive filtering, ensuring a strong signal and excellent data quality
Fast fixation, high precision



Brand new non-inductive inertial navigation

1. automatically initialized at power-on
2. test at the point, efficient and convenient
3. stable and not easy to exit, reliable accuracy

Dual network dual standby, switch at will

1. dual esim for host and handheld, including 3 years of traffic, high accuracy when powered on
2. supports dual sim cards (china mobile/china unicom), allowing seamless switching between networks. one-click network lock for added convenience



Image measurement, one step at a time

1. Rich geographical information can be obtained in real time through image data, which is efficient and convenient.
2. Non-contact measurement greatly improves the usable range of GNSS, and the bridge bottom, the opposite of the culvert and the surrounding area can be measured, which is efficient and safe.
3. Based on Android high-performance image processing technology, the handheld can get coordinates in real time, with typical accuracy of better than 2-4cm.
4. Rich data output types to meet the needs of different industry applications



Full constellation, full frequency band

Built-in multi-protocol transceiver radio

1. The new generation GNSS SoC chip, 1408 channels, supports the new frequency points of BeiDou B1C, B2a and B2bRTK
2. Multi-protocol in one device Built-in radio, compatible with brands both at home and abroad [#fenge#] RTK radio power modulation, typical operation distance is 7 km



HI-TARGET

SATEL

TRIMALK450S

TRIMMARK

TRANSEOT

SOUTH

CHC

Hi-Survey measurement software: Smart professional, helping to map



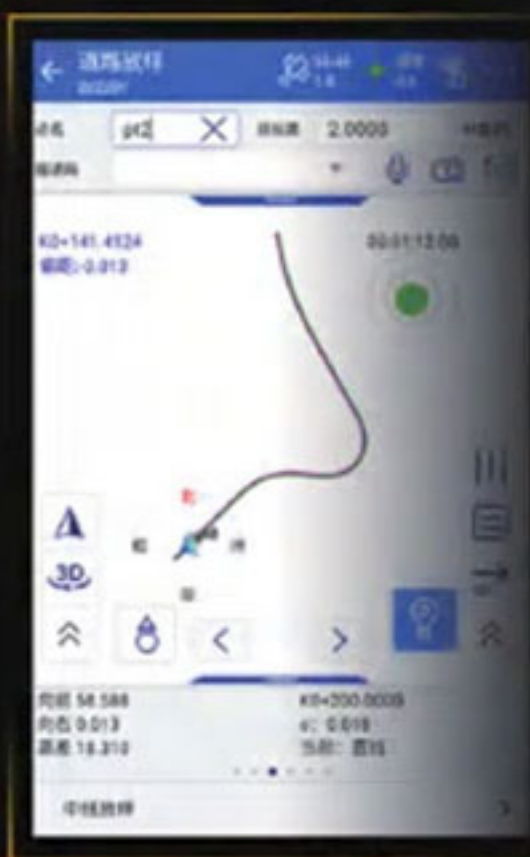
[One-click fix]



[CAD layout]



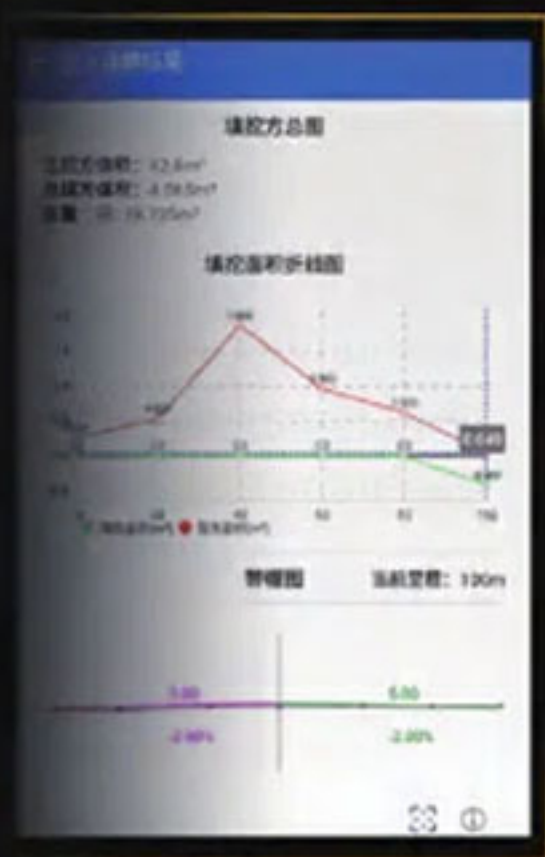
[CAD drawing]



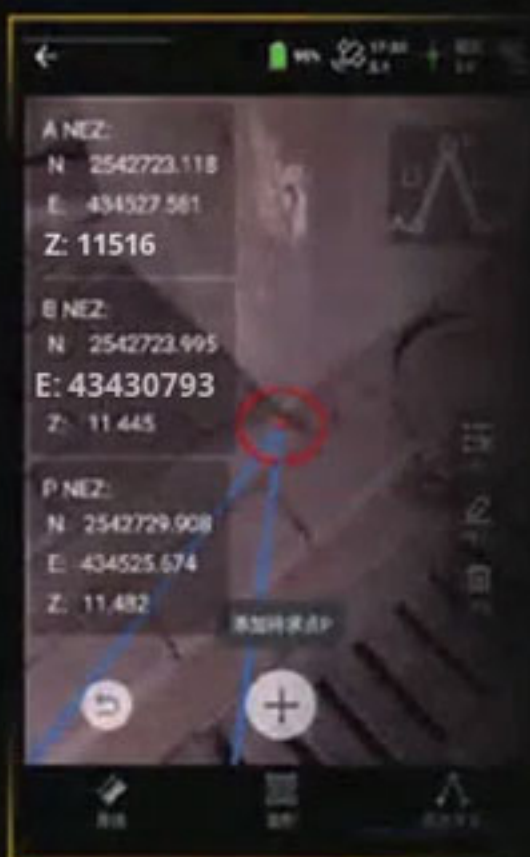
[Road layout]



[Power Survey]



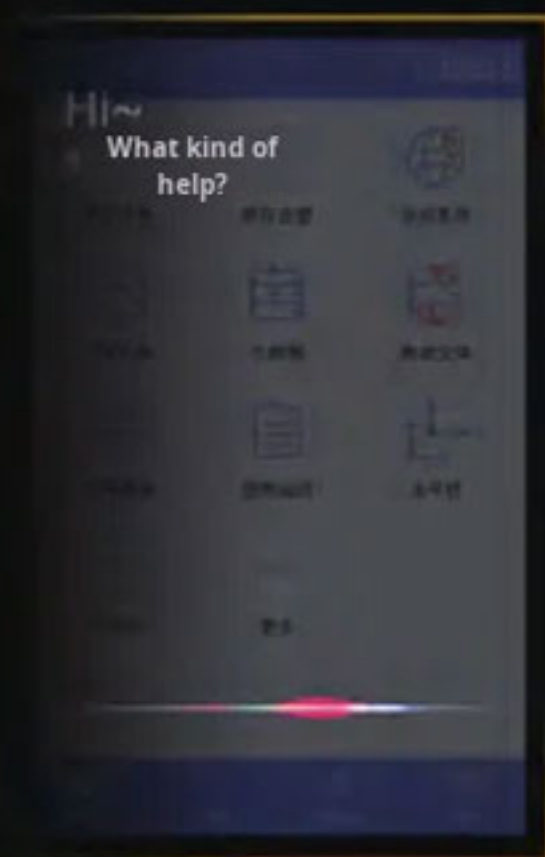
[Calculation of soil]



[AR measurement]



[AR layout]



[Voice Control]

Efficient measurement and placement

- Integrate intelligent CORS service, one-click fixing, and high-performance CAD engine is standard for #fenge#, which supports fast import and editing. DWG/DXF, accurate capture and layout

Rich industry applications

- Deeply into the road, power and other industries, and support the design and layout of all elements of roads (broken chain, horizontal and vertical, ultra-high, widened, slope, bridge and culvert) [#fenge#];

Innovative interactive experience

- Exclusive interactive experience, AR image measurement/real-scene layout, new experience of visual measurement, contact-free measurement, one-step solution [#fenge#] · AI voice control, free your hands, easier to operate



Comprehensive industry solutions

1. Image data supports 3D models, DOM and DSM data generated by mainstream modeling software such as Smart3D, AgisoftMetashape[#fenge#], and DPS, with plane accuracy better than 5cm and elevation accuracy better than 0.1mm.

10cm

2. Support mainstream UAVs to carry out integrated modeling of air and land, and complement each other with industry data;

3. High-precision 3D results can be used for earthwork calculation, distance measurement, height measurement, area measurement, surface area measurement, and are compatible with mainstream mapping software such as EPS and HiData. Other format files such as dwg and shp can be output, which are widely used in the fields of cultural relics archaeology, real estate, road construction, and electric power survey.

