

## SPECIFICATIONS

<b>Satellite Signals Tracked Simultaneously</b>	
Signal tracking	965 channels GPS: L1, L1C, L2C, L2P, L5 GLO: G1, G2, G3 BDS: BDS-2: B1I, B2I, B3I BDS-3: B1I, B3I, B1C, B2a, B2b* GAL: E1, E5A, E5B, E6C, AIBOC* QZSS: L1, L2C, L5* SBAS: L1* IRNSS: L5* MSS L-Band (Reserve)
GNSS features	Positioning output rate:1Hz~20Hz Initialization time<10s Initialization reliability:>99.99%
<b>Positioning precision</b>	
Code differential GNSS positioning	Horizontal: ±0.25m+1ppm Vertical: ±0.50m+1ppm SBAS positioning accuracy: typically<5m 2DRMS
Static GNSS surveying	Horizontal: ±2.5mm+0.5ppm Vertical: ±5mm+0.5ppm
Real-time kinematic surveying	Horizontal: ±8mm+1ppm Vertical: ±15mm+1ppm
Network RTK	Horizontal: ±8mm+0.5ppm Vertical: ±15mm+0.5ppm
IMU tilt compensation	Additional horizontal pole tip uncertainty typically less than 10mm + 0.7 mm/m° tilt down to 30°
IMU tilt angle	0°~60°
<b>User interaction</b>	
Operating system	Linux
Buttons	(No) button operation
Indicators	Four indicate lights
Web UI	Freely to configure and monitor the receiver by accessing to the web server via Wi-Fi and USB
Voice guide	Voice intelligent voice technology provides status and voice guide Supporting Chinese, English, Korean, Russian, Portuguese, Spanish, Turkish and user define
<b>Secondary development</b>	
Providing secondary development package	
<b>Hardware performance</b>	
Dimension	135mm(Diameter)×84.75mm(Height)
Weight	0.97kg (battery included)
Material	Magnesium aluminum alloy shell
Operating	-45°C~+70°C
Storage	-55°C~+85°C
Humidity	100% Non-condensing
Waterproof/Dustproof	IP68 standard, protected from long time immersion to depth of 1m IP68 standard, fully protected against blowing dust
Shock and vibration	Withstand 2 meters pole drop onto the cement ground naturally
Power Supply	9-25V DC, overvoltage protection
Battery	Internal Li-ion 6800mAh, 3.7V Static mode 10 h, Rover mode 8h, Base mode 8h
<b>Communications</b>	
I/O port	SPIN LEMO external power port + RS232, 7PIN external USB(OTG)+Ethernet 1 radio antenna interface
Wireless modem	Built-in radio, 1W/2W/3W switchable, typically work range can be 8KM Radio repeater
Frequency Range	410~470MHz
Communication Protocol	Fairlink, Trimtalk450s, SOUTH, HUACE, Hi-target, Satel
Double Module Bluetooth	BLEBluetooth 4.0 standard, support for android, ios cellphone connection
NFC Communication	Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed)
<b>WiFi</b>	
Standard	802.11 b/g standard
WiFi hotspot	The WiFi hotspot allows any mobile terminal to connect and access to the internal webserver for the control and monitor receiver
WiFi data link	To work as the datalink that receiver is able to broadcast and receive differential data via WiFi
<b>Data storage/Transmission</b>	
Data Storage	8GB SSD internal storage Support external USB storage and automatical cycle storage Changeable record interval, up to 50Hz raw data collection
Data Transmission	USB data transmission, supporting RTK/RTIP data download
Data Format	Differential data format: CMR+, CMRx, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2 GPS output data format: NMEA 0183, PJK plane coordinates, Binary code, Trimble GSDP Network model support: VRS, FRP, MAC, fully support NTRIP protocol
<b>Inertial sensing system</b>	
Tilt survey(Optional)	Built-in tilt compensator, correcting coordinates automatically according to the tilt direction and angle of the centering rod
Electronic bubble	Controller software display electronic bubble, checking leveling status of the centering rod real time
Thermometer	Built-in thermometer sensors, adopting intelligent temperature control technology which can monitor and adjust the temperature of receiver in real time

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# T7 GNSS Receiver

— Brand new diminutive RTK receiver —



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**SANDING OPTIC-ELECTRICS INSTRUMENT CO., LTD.**  
Add: Geomatics Industry Park, No. 39 Si Cheng Road, TianHe District, Guangzhou 510663 P.R. China  
Tel: +86-20-23380888 Fax: +86-20-221139032  
E-mail: export@sandinginstrument.com



Linux OS	WIFI	WEB UI	HD Ivoice
All Constellations	IMU ( Optional)	Electronic Bubble	IP68
8GB SSD storage	OTG	NFC	Bluetooth 4.0



## Outstanding GNSS performance >>>

Equipped with new generation the most powerful GNSS RTK engine with 965 channels, 17 can track signal from all constellations including B3 signal of BDS satellites. Its high-performance GNSS antenna is upgraded with strong anti-interference ability and sensitive satellite signal capture ability, to track more satellite in harsh environments. System is much higher, it can adapt to the job of longer uninterrupted power.

## Ultimate portability >>>

Highly integrated GNSS antenna, Bluetooth module and WIFI module, leading the design trend of miniaturization, light weight, and portable RTK to a new height. Magnesium alloy housing, tough line design, more delicate surface decoration, stronger sense of technological design, more durable.



## Innovative design >>>

Single button boot design, one button evokes all RTK operations. The body screen adopts a translucent high-strength panel, which has a stronger visual sense of technology. Plus four indicator lights, common information is clear at a glance. Double speaker design, three-dimensional sound broadcast, remove noise barriers, and receive clearer sound.

## Long Range radio link >>>

Built-in transceiver integrated radio, working frequency 410-470MHz. TrimTalk45DS, TrimMark3, SOUTH, CHC, SATEL, HI-TARGET are all compatible. Equipped with Far-Link "Simultaneous" radio module, based on Farlink protocol, it can increase the sensitivity and efficiency of radio signal, achieve the typical working range as 8KM operation, and meet the needs of customers for small and medium-scale.



## Barrier-Free Measurement >>>

Built-in 6800mAh high-capacity battery, the battery life is more than 10 hours, one charge, meets all-day work. Equipped with fast charging charger, which can be fully charged within 5 hours. The battery core can be recharged with long life, and performance is more secure and reliable.

## IMU survey (Optional) >>>

Built-in IMU compensator, correct the coordinates according to the tilt direction and angle of the centering rod automatically within 60°, assist you quickly and accurately survey or stake out points without leveling the pole, error less than 3cm within 45° inclination, improve working efficiency by 20%.

