

SPECIFICATIONS

Satellite Signals Tracked Simultaneously	
Signal Tracking	1598 channels GPS: L1/L1C L2C L2P1S GLO: G1/G2/G3 BDS: BDS-2: B1/B2/BDS-3: B3/B3I/B1C/B2a/B2b* GAL: E1/E5A/E5B/E5C/AltBOC* QZSS: L1/L2C/L5* SBAS: L1* IRNSS: L1* L-Band
GNSS Features	Positioning output rate: 1Hz~20Hz Initialization time: <10s Reacquisition time: < 2s Initialization reliability: >99.99%
Positioning Precision	
Code Differential GNSS Positioning	Horizontal: ±0.25m+1ppm Vertical: ±0.50m+1ppm SBAS positioning accuracy: typically ±5m 3DRMS
Static / Fast Static	Horizontal: ±2.5mm+0.1ppm Vertical: ±3.5mm+0.1ppm / Horizontal: ±2.5mm+0.5ppm Vertical: ±1.5mm+0.5ppm
Real-Time Kinematic and PPPK	Horizontal: ±8mm+0.5ppm Vertical: ±1.5mm+0.5ppm
Network RTK	Horizontal: ±8mm+0.5ppm Vertical: ±1.5mm+0.5ppm
User Interaction	
Operating System	Linux
Buttons	One buttons operation
Indicators	Five 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
System	Supporting Chinese, English, Korean, Russian, Portuguese, Spanish, Turkish and user define
Technology	Advanced multipath mitigation for highest reliability Sanding
Hardware Performance	
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 /Vibration	Withstand 2 meters pole drop onto the cement ground naturally. Vibration with MIL STD 810
Power Supply	9-28V DC, overvoltage protection
Battery	Internal Li-on 6800mAh, 3.7V
Battery Life	Static mode 15h, Rover RTK 12h, Base RTK 12h
Communications	
I/O Port	5PIN LEMO external power port+RS232, 7PIN external USB(OTG)+Ethernet 1 radio antenna interface
UHF Wireless Modem	2W 3W radio, receive and transmit typically 8km with Farlink protocol Radio repeater
Frequency Range	410-470MHz
Communication Protocol	Farlink, Trimble450s, SOUTH, HUIACE, Hi-target, Satel and others
Cellular Mobile Network*	*Reserved function, extra cost for activating
Double Module Bluetooth	WCDMA/CDMA2000/TDD-LTE /FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE Bluetooth 4.0 standard, support for Win (7 to 11), Android (7 to 11), ios cellphone connection Bluetooth 2.1+EDR standard
NFC Communication	Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC, wireless communication module needed)
Data Collector Internet	Support to obtain the differential info from CORS station via internet of the controller itself, no need to insert SIM card and network antenna for GNSS receiver. With better compatibility, faster access speed.
WiFi	
Standard	802.11b/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
Data Storage / Transmission	
Data Storage	8GB SSD internal storage, and support external USB storage and automatic cycle storage Changeable record interval, up to 50Hz raw data collection
Data Transmission	USB data transmission, supporting FTP/HTTP data download
Data Format	Differential data format: RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2 GPS output data format: NMEA 0183, PPK plane coordinates, Binary code ASCII, GSV, RMC, HDT, VHD, GGA, GSA, ZDA, VTG, GSV, FTM, and others Network model support: VRS, FKP, MAC, fully support NTRIP protocol
Inertial Sensing System	
Tilt Angle	Up to 60 degrees
Accuracy	Down to 7mm
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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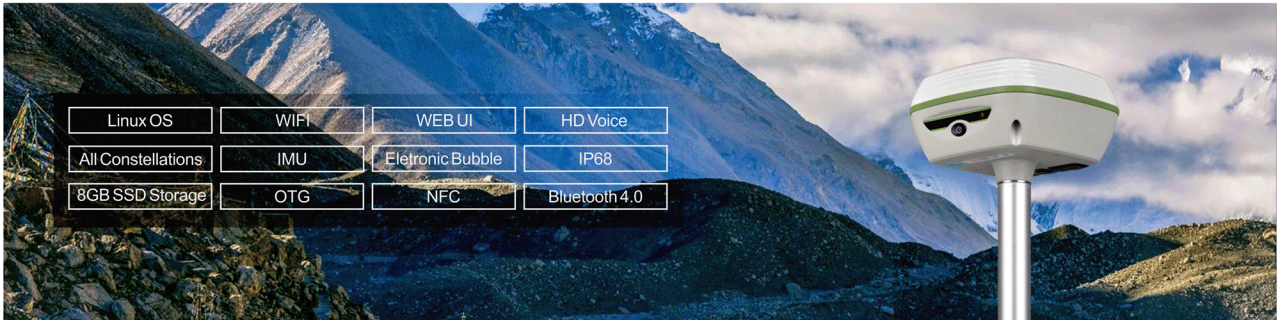
T7

— Brand new diminutive RTK receiver —

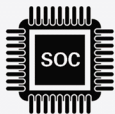


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Linux OS	WiFi	WEB UI	HD Voice
All Constellations	IMU	Electronic Bubble	IP68
8GB SSD Storage	OTG	NFC	Bluetooth 4.0



Outstanding GNSS Performance >>>

Equipped with new generation the most powerful GNSS RTK engine with 1598 channels, it 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.

"SOC", New System Structure >>>

"SOC" means "System-on-Chip", this new design integrates several individual hardware modules into one microchip. The receiver can be much lighter and smaller, system runs more stable and faster, bluetooth connection speed is faster. The "High-Low Frequency Integration" antenna can effectively restrain the interruptive signal.

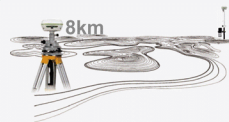


Innovative Design >>>

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. TrimTalk450S, 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 12 hours, one charge, meets all-day work. Equipped with fast charging charger, which can be fully charged within 4 hours. The battery core can be recharged with long life, and performance is more secure and reliable.

IMU Survey >>>

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 7mm within 45° inclination, improve working efficiency by 20%.

