T6 GNSS Receiver

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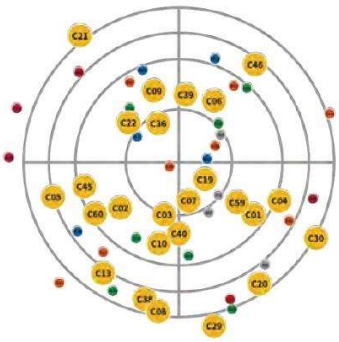
T6 is designed to enhance your performance in the field survey and to provide the most reliable positioning result.

It integrates a 1598 channels world leading GNSS positioning engine, a high precision IMU, a patented-designed Farlink UHF radio, and 4G, Bluetooth, wifi... all state-of-art technologies are there to ensure you an excellent working experience.

Key Features

Quick and Reliable Fixed Solution

With the high-gain GNSS antenna of our latest design in 2025, the usability of Glonass & Galileo satellites is greatly improved, so even in harsh environment T6 still is able to track more satellite than other receivers and deliver centimeter accuracy positioning result in few seconds.



Work Anytime, Anywhere with L-Band

By receiving correction delivered directly from L-band satellites, T6 allows you to achieve 10 to 20 centimeter-level accuracy with only one rover on hand when base receiver or CORS service is not accessible in remote areas. This function is based on Galileo HAS and BDS PPP, please apply the registration code from local distributors.

Powerful and Durable Radio Connectivity

T6 features our patented-designed Farlink radio technology. When it works as an UHF base station T6 is able to transmit correction data farther than others, in good condition the working range can be 10 to 15 km. In 2025, the latest protocol Farlink Pro is added as a new option, for user to cope with challenging environment.

Efficient IMU Tilt Survey

T6's IMU sensor is almost all-time available. When surveyor rotate the pole while walking, or changing the attitude of the receiver, the availability status won’t be easily lost. The IMU is calibrate-free.

Superior Endurance & Ruggedness

The newly developed power management system allows T6 to work up to 15-18 hours as rover and can be recharged by a type-C connector.

The shock-resistant frame, water-proof frame all have been enhanced, now the overall proof level is IP68.

SPECIFICATIONS

GNSS Features	
Channels	1598
GPS	L1, L1C, L1C/A, L2C, L2P(Y), L5
GLONASS	G1, G2, G3
BDS	B1I, B2I, B3I, B1C, B2a, B2b
GALILEO	E1, E5a, E5b, E6, AltBOC*
SBAS	L1*
IRNSS	L5*
QZSS	L1, L2C, L5*
MSS L-Band*	BDS PPP & Galileo HAS
Positioning Output Rate	1Hz~20Hz
Initialization Time	< 10s
Initialization Reliability	>99.99%

Positioning Precision	
Code Differential Positioning	Horizontal: 0.25 m + 1 ppm RMS Vertical: 0.50 m + 1 ppm RMS
GNSS Static	Horizontal: 2.5 mm + 0.5 ppm RMS Vertical: 3.5 mm + 0.5 ppm RMS
Static (Long Observation)	Horizontal: 2.5 mm + 0.1 ppm RMS Vertical: 3 mm + 0.4 ppm RMS
Rapid Static	Horizontal: 2.5 mm + 0.5 ppm RMS Vertical: 5 mm + 0.5 ppm RMS
PPK	Horizontal: 3 mm + 1 ppm RMS Vertical: 5 mm + 1 ppm RMS
RTK(UHF)	Horizontal: 8 mm + 1 ppm RMS Vertical: 15 mm + 1 ppm RMS
RTK(NTRIP)	Horizontal: 8 mm + 0.5 ppm RMS Vertical: 15 mm + 0.5 ppm RMS
SBAS Positioning	Typically<5m 3DRMS
RTK Initialization Time	2~8s
IMU Tilt Angle	0°~60°

Hardware Performance	
Dimension	135mm(W) ×135mm(L) × 83mm(H)
Weight	900g (battery included)
Material	Magnesium aluminum alloy shell
Operating Temperature	-45℃~+75℃
Storage Temperature	-55℃~+85℃
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
Power Supply	6-28V DC, overvoltage protection
Battery	7.2V, 6800mAh rechargeable Lithium-ion battery
Battery Life	15h (rover bluetooth mode)

*Reserve for future upgrade.

Remarks: Measurement accuracy and operation range might vary due to atmospheric conditions, signal multipath, obstructions, observation time, temperature, signal geometry and number of tracked satellites. Specifications subject to change without prior notice.

Communications	
I/O Port	**4G SIM Card Slot** 5-PIN LEMO interface (external power port + RS232) Type-C interface (charge + OTG+ Ethernet) UHF antenna interface
Internal UHF	Radio receiver and transmitter, repeater function
Frequency Range	410-470MHz
Communication Protocol	Farlink, Farlink Pro, Trimtalk, SOUTH, Satel
Communication Range	Typically 5-8km with Farlink protocol, up to 15km
Bluetooth	Bluetooth 3.0/4.1 standard, Bluetooth 2.1 + EDR
NFC Communication	Support
Modem	802.11 b/g/n standard

Data Storage/Transmission	
Storage	4GB SSD internal storage, extendable up to 64GB Support external USB storage (OTG) The customizable sample interval is up to 20Hz
Data transmission	Plug and play mode of USB data transmission Supports FTP/HTTP data download
Data format	Static data format: STH, Rinex2.01, Rinex3.02 and etc. Differential data format: RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2 GPS output data format: NMEA 0183, PJK plane coordinate, Binary code Network model support: VRS, FKP, MAC, fully support NTRIP protocol

Sensors	
IMU	Built-in IMU module, calibration-free, 60°
Electronic bubble	Controller software can display electronic bubble, checking leveling status of the carbon pole in real-time
Thermometer	Built-in thermometer sensor, adopting intelligent temperature control technology, monitoring and adjusting the receiver temperature

User Interaction	
Operating system	Linux
Buttons	Single button
Indicators	Bluetooth, satellites, data, charging and power indicators
Web interaction	With access to Web UI via WiFi or USB connection, users can monitor the receiver status and change the configurations
Voice guidance	Chinese/English/Korean/Spanish/Portuguese/Russian /Turkish/French/Italian
Secondary development	Provides secondary development package, and opens the OpenSIC observation data format and interaction interface definition
Cloud service	The powerful cloud platform provides online services like remote management, firmware updates, online registers, etc.

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