

SPECIFICATIONS

Satellite Signals Tracked Simultaneously	
Signal tracking	1,598 channels
	GPS: L1, L2C, L2E, L3P, L5, L2, L1 C/A, L2 C/A, L2E
	GLONASS: G1, G2, G3, L1 C/A, L2 C/A, L3P, L2P, L3
	BDS: BDS-2: B1I, B2I, B3I BDS-3: B1I, B3I, B2C, B2b*
	GAL: E1, E5A, E5B, E6C, A1B/C*
	QZSS: L1, L2C, L5/L1 C/A, L1S, L1C, L6*
	SBAS: L1*
	IRNSS: L5*
GNSS features	MSS L-Band <20cm
	Positioning output rate: 1Hz~50Hz
	Initialization time <10s
	Initialization reliability >99.99%
Positioning precision	
Code differential GNSS positioning	Horizontal: 20.25mm+1ppm Vertical: 20.50mm+1ppm SBAS positioning accuracy: Typically <5m 3DRMS
Precision Static	Horizontal: 2.25mm+0.1ppm Vertical: 2.35mm+0.4ppm
Static and Fast Static	Horizontal: 3.3mm+0.5ppm Vertical: 3.5mm+0.5ppm
Real-time kinematic surveying	Horizontal: 28mm+0.5ppm Vertical: 215mm+0.5ppm
Network RTK/PPK	Horizontal: 28mm+0.5ppm Vertical: 215mm+0.5ppm
PPP RTK (P-RTK/PPR)	Horizontal: 3cm + 10 sec / 20cm + 5 min
IMU tilt compensation	Additional horizontal pole tip uncertainty typically less than 7mm + 0.7 mm/m° (up to 60°)
User interaction	
Operating system	Linux
Buttons	Double button: operation
Indicators	4 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
Secondary development	Providing secondary development package
Hardware performance	
Dimension	166mm x 96.1mm
Weight	1.34kg
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, fully protected against blowing dust
Vibration	MIL-STD-810F
Shock	Withstand 2 meters pole drop onto the cement ground naturally
Power Supply	9-28V DC, overvoltage protection
Battery	10000mAh, 7.4V
Battery life	Static mode 15h, lower RTK mode 15h, Base UHF mode 15h
Communications	
I/O port	SPIN LEMO external power port + RS232, Type-C Fast-charge + Copy static data
Cellular Mobile Network	Advance 4G network communic, module and compatible 3G/2G
Wireless modem	Built-in radio, 1W/2W/3W switchable, typically work range can be 15KM with Farlink
	Radio and internet repeater switchable
Frequency Range	410-470MHz
Communication Protocol	Farlink, Trimble450s, SOUTH, HUACE, Hi-target, Satel
Double Module Bluetooth	BLE/Bluetooth 4.0 standard, support for android, 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)
WiFi	
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
Data storage/ Transmission	
Data Storage	8GB SSD internal storage
	Support external USB storage and automatic cycle storage (up to 128Gb)
	Changeable record interval, up to 50Hz raw data collection
Data Transmission	USB data transmission, supporting FTP/HTTP data download
Data Format	Differential data format: CMR, CMR, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2
	GPS output data format: NMEA 0183, RINEX plane coordinates, Binary code, Trimble G50F
	Network model support: VRS, FKP, MAC, fully support NTRIP protocol
Inertial sensing system	
Tilt survey	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

SANDING
EVERY POINT MATTERS

T9 pro

A High Performance and Innovative
Surveying GNSS Solution



- World-leading Position Technology, All Constellations Supported
- Inertial Measurement + GNSS Positioning, More Accurate and Faster
- Up to 60° Tilt Angle, More Convenient to Measure in Difficult Terrain
- HD 1.3-inch Color LCD Screen, More Suitable for Field Work
- 10,000 mAh battery, A Whole-day Working With only One Recharge

SANDING
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T9 pro

A High Performance and Innovative Surveying GNSS Solution



Outstanding GNSS performance

Equipped with new generation the most powerful GNSS RTK engine with 1598 channels, T9Pro 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 be adapt to the job of longer uninterrupted power.

Inertial Measurement, a technology that greatly improves efficiency.

The latest inertial measurement technology is onboard with T9Pro. The tilt survey is no more affected by the earth's magnetic field and requires no correction. It can be activated and start working within only few seconds. With a maximum tilt angle of 60°, there is no need for centering, this fast positioning will increase measurement speed by over 30%. The combination algorithm of IMU + GNSS can get fixed solution faster and keep measurement results more stable.

Farlink protocol, Improved Functions and Higher Performance

Adopts an internal radio with 3W maximum transmission power to achieve the typical working range as 15km through "Far-link" protocol. The transmission bandwidth becomes large, which perfectly solves the problem of large data volume of multiple constellations transmission. And the power consumption can reduce about 60% in the same amount of data transmission compare to the traditional RTK.

Other Features



10,000 mAh Battery, A whole-day working With only one recharge

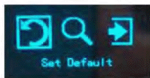
10,000 mAh battery, a whole-day working With only one recharge. Support fast-charge. Adopt Type-C interface design, which be fully charged within 3.5 hours. 6-28V DC supply voltage with overvoltage protection. And T9Pro supports battery pole supply mode, increasing extra working time up 16 hours.



Increase Your Efficiency with 10 Innovative Designs!

Make your workflow simpler and Smoother

- Quickly switch working mode & data link, without handheld controller and mobile phone.
- Quickly check system information on receiver screen, no need of other device.
- Quickly launch PPK measurement program, without handheld controller.
- Precisely display self-check status on receiver screen, save time, never miss information.



Make you work easier and comfortable

- Re-designed self-check program, only one press to activate it.
- Two steps to restore factory default setting, operation in WebUI is not needed.
- Menu display and voice guide in 8 languages, no problem to work in foreign countries.

Make you working result more reliable

- Newly designed GNSS / Network / wifi / BT all-in-one antenna, enhances signal strength and stability.
- Static data recording status, data size, time can be viewed on screen in real time, to prevent data loss and rework.
- PPK data recording status can be viewed on screen, to prevent data loss and rework.

