GNSS Receiver
T30Pro

Integrated Photogrammetry and AR Stakeout RTK

T30Pro GNSS Receiver

The T30Pro is a long-life battery GNSS receiver integrates AR and Photogrammetry. It has a built-in high-precision positioning module that supports tracking satellite signals from all systems and frequency bands. It is equipped with 4G full Netcom, Bluetooth, Wi-Fi, a 5W data transmission radio. With a 7.2V, 13800mAh battery, it supports two days of operation after a single charge. The receiver also features a high-precision IMU module, Photogrammetry, and AR stakeout, further expanding the boundaries of RTK survey.

CHARACTERISTIC

Linux Intelligent System

Linux+ARM Cortex-A7 intelligent system platform offers efficient computation and unlimited product functionality expansion.

Full System GNSS Reception

The receiver integrates a high-precision positioning module with 1408 high-speed channels. It supports BDS B1I/B2I/B3I/B1C/B2a/B2b(PPP), GPS L1/L2/L5, GLONASS L1/L2/L3, Galileo E1/E5a/E5b/E6(PPP), QZSS L1/L2/L5 signals reception and calculation.

Tilt Measurement

T30Pro has the IMU module. Fast initialization and up to 60° inclination.

Photogrammetry

Equipped with a 1/2.6-inch large base high-definition wide-angle camera, it integrates high-precision inertial navigation algorithms and works with high-performance Android handheld devices for high-precision image measurement.

AR Real-Time Stakeout

Utilizes a professional ultra-wide-angle camera to provide high-definition real-time plotting functionality, making layout tasks more accurate and convenient.

4G Full NetCom

The 4G NetCom solution based on the Linux platform fully supports 2/3/4G networks of China Mobile/China Unicom/China Telecom, offering better compatibility, stronger signals, and more stable connections.

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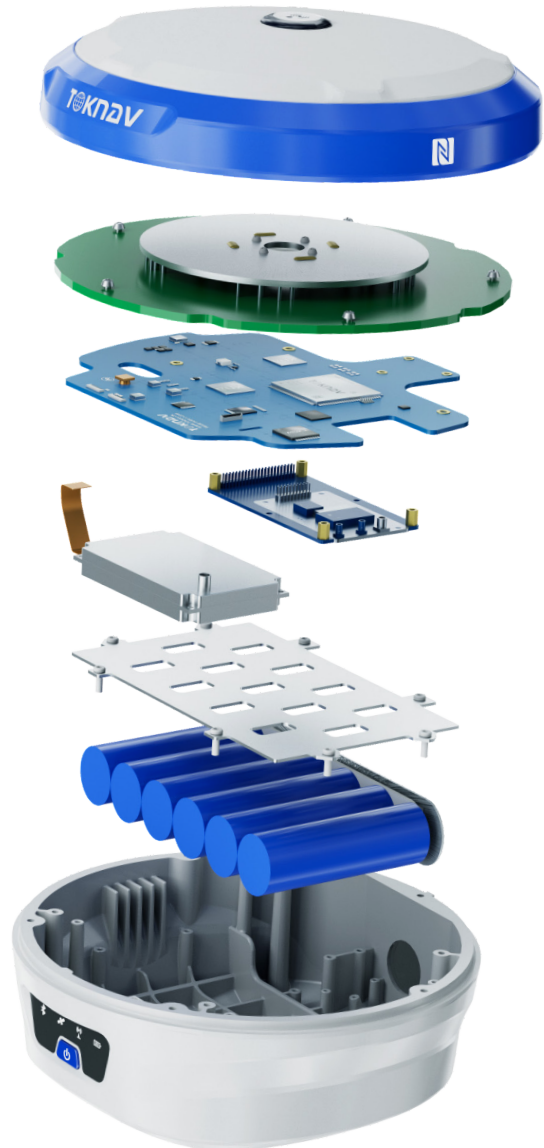**Main body magnesium alloy ABS/PC top cover**

1408 Channel

GPS GLONASS BDS GALILEO QZSS SBAS

Photogrammetry

Results in 1 second

7.2V, 13800mAh

Over 48 Hours

Photogrammetry AR Stakeout

AR Real-Time Stakeout

Intelligent route planning 50% efficiency improvement

Photogrammetry

Dual-Camera Photogrammetry

Just 1 second to compute directly on the device

Factory multi-calibration with IMU and visual depth integration.

HEIGHT
104.9mm

DIAMETER
174.9mm

WEIGHT
1500g

SPECIFICATION

SYSTEM

HARDWARE SYSTEM	ARM Cortex-A7 1.8GHz
OS	Linux

GNSS

GPS	L1 C/A, L1C, L2P(Y), L2C, L5
GLONASS	L1, L2, L3
BDS	B1I, B2I, B3I, B1C, B2a, B2b(PPP)
GALILEO	E1, E5a, E5b, E6(PPP)
QZSS	L1, L2, L5
SBAS	L1(PPP)
NavIC (IRNSS)	L5(IRNSS support in future)
Channel	1408
Standard Output	NMEA-0183
Correction I/O Protocol	RTCM 3.X
Frequency	20Hz(max)
Reacquisition Time	<1s
Cold Start Time	<40s

ACCURACY

SINGLE (RMS)	Horizontal: 1.5m / Vertical: 2.5m
DGPS (RMS)	Horizontal: 0.4m / Vertical: 0.8m
RTK (RMS)	Horizontal: ± (8mm+1ppm) Vertical: ± (15mm+1ppm)
Timing Precision (RMS)	20ns
Static Mode Precision (RMS)	Horizontal: ±（2.5mm+1ppm) Vertical: ±（5mm+1ppm)
Velocity Estimation (RMS)	0.03m/s
Tilt Correction (Within 60°)	<2cm

SYSTEM PLATFORM

Bluetooth	BR+EDR+BLE
WIFI	802.11 b/g/n
Network	LTE FDD: B1/2/3/4/5/7/8/12/13/ 18/19/20/25/26/28 LTE TDD: B38/39/40/41 WCDMA: B1/2/4/5/6/8/19 GSM: B2/3/5/8
Radio	Integrated receiver/transmitter Frequency Range: 410~470MHz Power: 1W/2W/5W Protocols: TRIMTALK, TRIMMK3, SOUTH, TRANSEOT Air Baud Rate: 9600, 19200

(continued)

Storage	32GB storage
IS Camera	Supports image survey Sensor size: 1/2.6 inch Focal length: 6mm Aperture: f/2.8 Resolution: 1920*1080 Field of view: D51.8°H42.4°V32.4° Distortion: <0.5%
AR Camera	Supports AR real scene stakeout Sensor size: 1/2.8 inch Aperture: f/2.5 Resolution: 1920*1080 Field of view: D70.3°H62.7°V38.6° Distortion: <0.38%

INDICATOR

Power Indicator	Indicates power and charging status
Differential Signal Indicator	Indicates differential signal transmission status
Satellite Indicator	Indicates satellite reception status
Bluetooth Indicator	Indicates Bluetooth connection status

BATTERY / CHARGE

Capacity	7.2V, 13800mAh
Endurance	Over 48 hours(when applying controller network mode)
Charging	Supports USB PD 15V/2A and 5V/3A

ENVIRONMENT

Operating Temperature	-20°C~+60°C
Storage Temperature	-40°C~+85°C
Shock Resistance	Can withstand a 1.5m drop at normal temperatures
Protection Rating	IP68

PHYSICAL

Materials	Magnesium alloy casing with ABS/PC plastic top cover
Dimensions	Φ174.9 * 104.9mm
Weight	1500g

ACCESSORIES

T30Pro	1 Unit
Power adapter	1 PCS
Type-C To Type-C	1 PCS
Radio Antenna	1 PCS
7-Pin Data Cable	1 PCS

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Manufacturers may update parameters at any time, please refer to the latest product information.