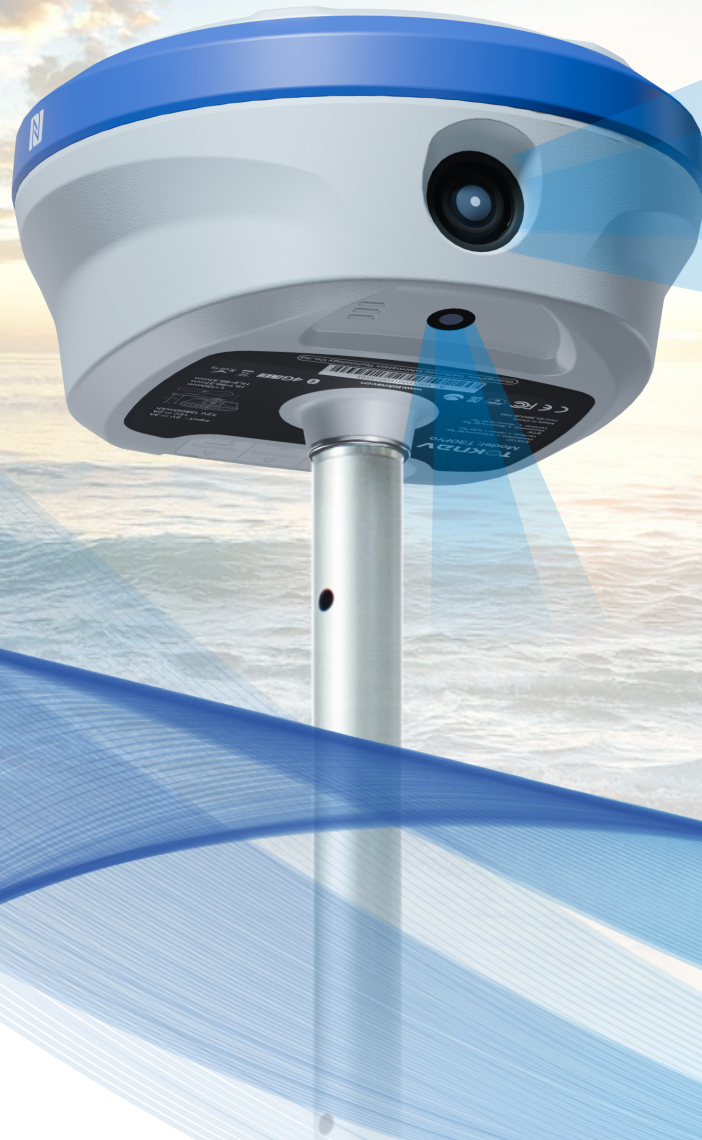


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TOKNAV



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.

T30Pro GNSS Receiver

Integrated Photogrammetry and AR Stakeout RTK

Main body magnesium alloy
ABS/PC top cover

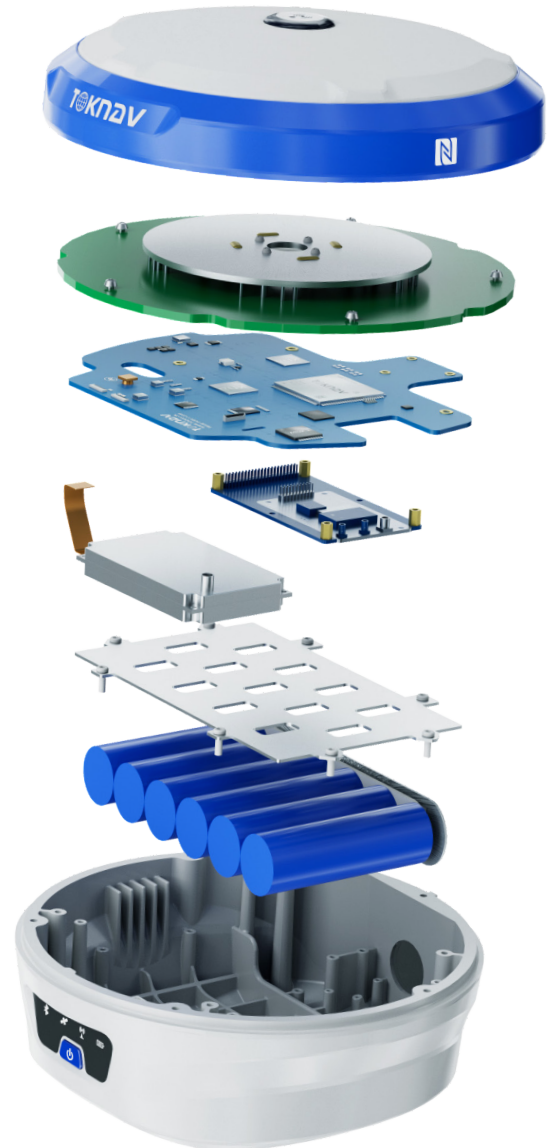
1408 Channel
GPS GLONASS BDS GALILEO
QZSS SBAS

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



HEIGHT	DIAMETER	WEIGHT
104.9mm	174.9mm	1500g

Dual-Camera Photogrammetry

Just 1 second to compute directly on the device

Factory multi-calibration with IMU and visual depth integration.



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: $\pm (8\text{mm}+1\text{ppm})$
Vertical: $\pm (15\text{mm}+1\text{ppm})$

Timing Precision (RMS) 20ns

Static Mode Precision (RMS) Horizontal: $\pm (2.5\text{mm}+1\text{ppm})$
Vertical: $\pm (5\text{mm}+1\text{ppm})$

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

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 $\phi 174.9 \times 104.9\text{mm}$

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.



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