

GNSS Receiver

T30

Laser Measurement RTK

T30 GNSS Receiver

T30 is a full-featured GNSS receiver designed for long battery life and high precision. It includes an advanced positioning module supporting full-system and multi-frequency satellite signal tracking. Equipped with 4G universal connectivity, Bluetooth, WiFi, a 5W data radio, and a large-capacity battery, it can operate continuously for up to two days on a single charge. The device integrates a high-precision inertial navigation system combined with AR and laser technology for AR stakeout and laser measurement, and augmented reality plotting, making surveying tasks more efficient and convenient.

CHARACTERISTIC

Linux Intelligent System

Linux+ARM Cortex-A7, the intelligent system platform, brings efficient computing and unlimited expansion of product functions to users.

Full System GNSS Reception

The receiver integrates a high-precision positioning module, utilizing 1408 channels to support a comprehensive range of signals including 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.

Full Netcom 4G Communication

Based on the Linux platform, this full netcom 4G solution supports mobile, Unicom, Telecom 2/3/4G networks for better compatibility and stronger, more stable connections.

Laser Measurement

Equipped with a high-precision millimeter-level laser ranging module, combined with high-precision inertial navigation for accurate laser targeting in complex environments.

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.

Long Endurance

Built in 13800mAh battery ensures continuous working time of more than 2 days under normal operation.

T30 GNSS Receiver

Laser Measurement RTK

Main body magnesium alloy
ABS/PC top cover

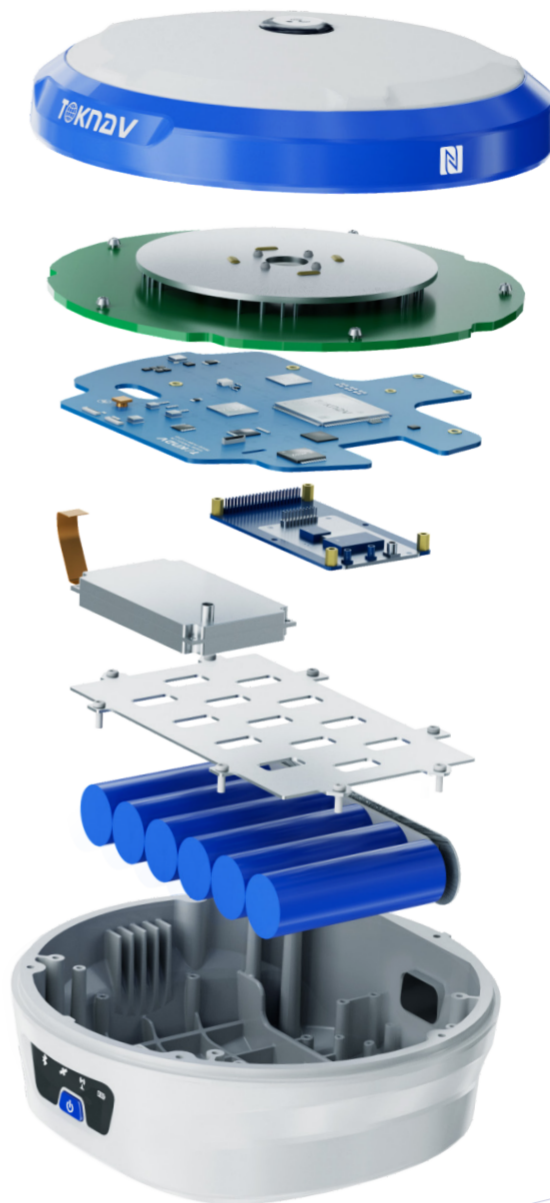
1408 Channel
GPS GLONASS BDS GALILEO
QZSS SBAS

Integrated 4G and 5W radio enable
simultaneous network and radio
differential transmission

7.2V, 13800mAh
Over 48 Hours

**Laser Measurement
AR Stakeout**

AR Real-Time Stakeout
Intelligent route planning
50% efficiency improvement



LASER MEASUREMENT



Precise navigation with **2.5cm** accuracy up to **5 meters**.
Enhanced with Green Laser.
Expands the range of measurable objects.

HEIGHT	DIAMETER	WEIGHT
104.9mm	174.9mm	1500g

SPECIFICATION

SYSTEM

HARDWARE SYSTEM ARM Cortex-A71.8GHz

OS Linux

GNSS

GPS L1C/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(Requires firmware support)

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

Laser Measurement The three-dimensional accuracy of laser tilt measurement within 5m: no more than 2.5cm

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

Storage 32GB storage

Radio

Integrated high-power transceiver
Frequency Range: 410~470MHz
Power: 1W/2W/5W
Protocols: TRIMTALK, TRIMMK3,
SOUTH, TRANSEOT
Air Baud Rate: 9600, 19200bps

Camera

AR real-time stakeout supported
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 (With adaptive dynamic current adjustment)

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 $\Phi 174.9 * 104.9\text{mm}$

Weight 1500g

ACCESSORIES

T30 1 Unit

Power adapter 1 PCS

Type-C To Type-C 1 PCS

Radio Antenna 1 PCS

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



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