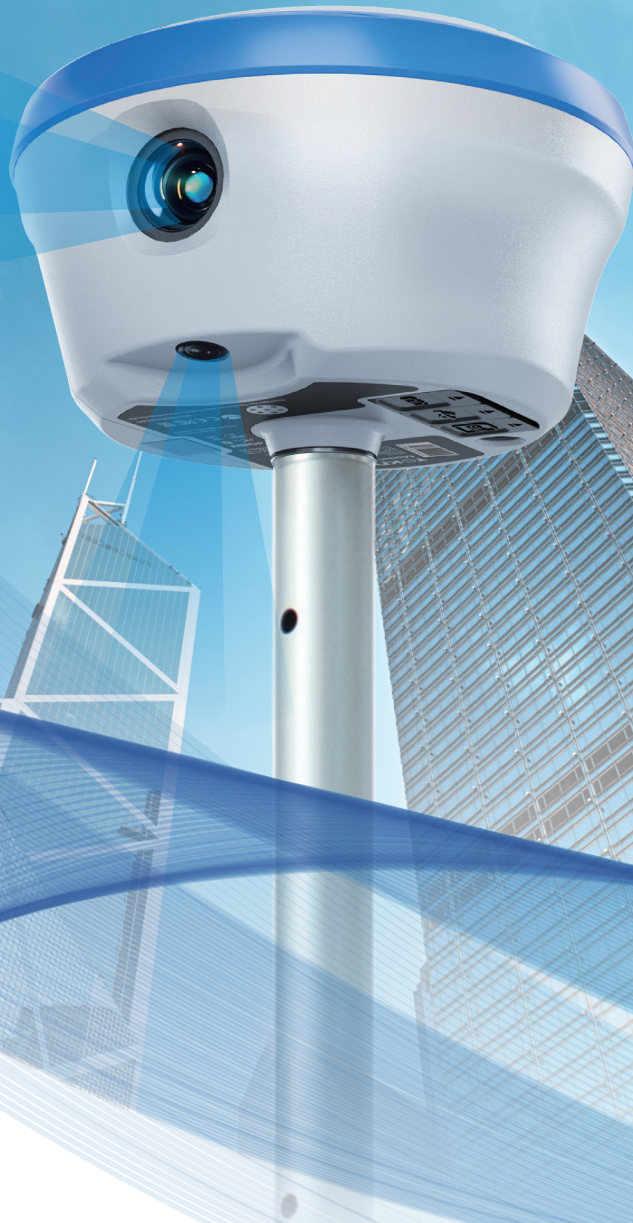




GNSS Receiver **T40Pro**

Hot Swappable Battery
Photogrammetric RTK

T40Pro GNSS Receiver

The T40Pro is a versatile GNSS receiver equipped with photogrammetry technology. It integrates a high-precision positioning module, IMU, AR, and a high-definition imaging camera, combining precise inertial navigation and positioning data. It enables tilt measurement, AR real-time staking, and image-based survey, allowing for efficient extraction of high-precision coordinates from real-world images. The receiver features a robust magnesium-aluminum alloy design, offering durability and reliability. It supports hot-swappable batteries, allowing quick recharging without power interruption, thereby extending operational time.

CHARACTERISTIC

Linux Intelligent System

The Linux + ARM Cortex-A7 intelligent system platform provides users with efficient computing power and unlimited expansion of product features.

Tilt Measurement

Equipped with an intelligent high-precision inertial navigation (IMU) module, the device offers real-time tilt compensation, eliminating the issue of “floating points” in RTK surveys.

AR Stake Out

A professional ultra-wide-angle camera provides HD real-world stake out capabilities. Its user-friendly AR stake out application ensures precise, one-shot staking performance.

Photogrammetry

The receiver is equipped with a high-definition wide-angle camera with a large 1/2.6-inch sensor, integrating high-precision inertial navigation algorithms. Coupled with a high-performance Android controller, it achieves high-precision image survey.

Extended Battery Life

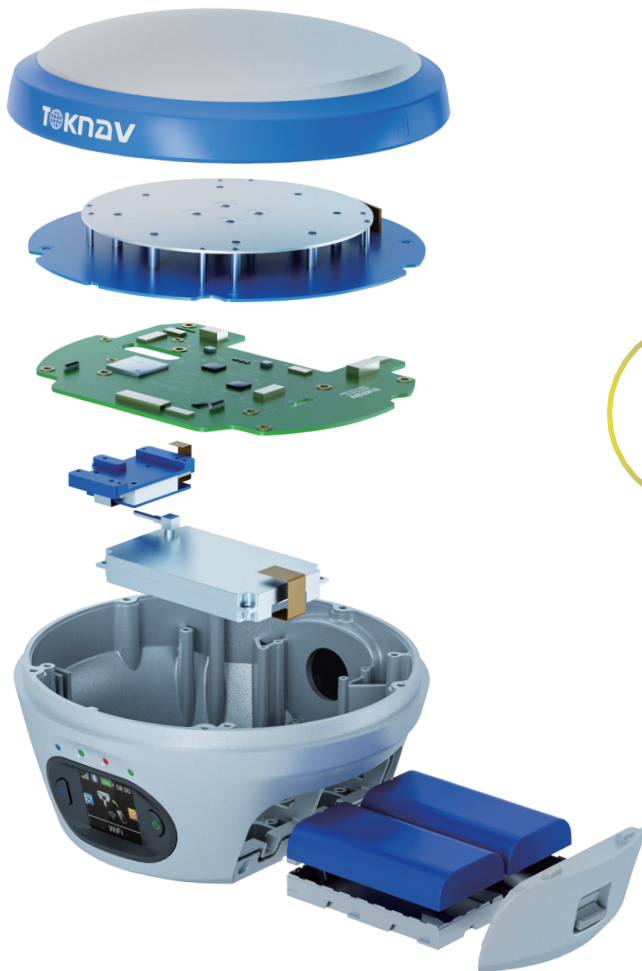
The receiver supports two detachable batteries that allow hot-swapping without power interruption. This enables quick battery replacement, significantly extending operational endurance.

IP68 Design

Industrial design, solid magnesium alloy shell, in line with IP68 design requirements, safe and reliable.

T40Pro GNSS Receiver

Hot Swappable Battery Photogrammetric RTK



Main body Magnesium alloy
ABS/PC top cover

Photogrammetric
Results in 1 second

Offers HD real-world stake out with AR technology.

7.2V, 3400mAh*2
Over 20 Hours

Supports dual removable powerful batteries for extended operation

Photogrammetry



HEIGHT	DIAMETER	WEIGHT
103 mm	160 mm	850 g

Error of 2-4 cm within 2-15 meters.
Removable battery, dedicated charger
AR Stakeout Supported

SPECIFICATION

SYSTEM

HARDWARE SYSTEM	ARM Cortex-A7
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
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Cold Start Time	<40s
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ACCURACY

SINGLE (RMS)	Horizontal: 1.5m / Vertical: 2.5m
DGPS (RMS)	Horizontal: 0.4m / Vertical: 0.8m

RTK (RMS)	Horizontal: $\pm$ (8mm+1ppm) Vertical: $\pm$ (15mm+1ppm)
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Time Accuracy(RMS)	20ns
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Static(RMS)	Horizontal: $\pm$ (2.5mm+1ppm) Vertical: $\pm$ (5mm+1ppm)
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Speed Accuracy(RMS)	0.03m/s
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Tilt Correction (Within 60°)	<2cm
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AR Stakeout Accuracy	Horizontal: $\pm$ (8mm+1ppm) Vertical: $\pm$ (15mm+1ppm)
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Photogrammetry Accuracy	Error of 2-4 cm within 2-15 meters.
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SYSTEM PLATFORM

Bluetooth	BR+EDR+BLE
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WIFI	802.11 b/g/n
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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
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Storage	64GB Storage
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Data Radio

Integrated receiver/transmitter
Frequency Range: 410~470MHz
Power: 1W/2W/5W
Protocols: TRIMTALK, TRIMMK3,
SOUTH, TRANSEOT
Air Baud Rate: 9600, 19200

IS Camera

Supports Photogrammetry
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

AR Stakeout Supported
Sensor: 1/2.8 inch
Aperture: f/2.5
Resolution: 1920*1080
FOV: 70.3°H62.7°V38.6°
Distortion: <0.38%

DISPLAY

LCD Panel	Sensor: 1.3 inch Resolution: 240*RGB*240
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BATTERY

Battery	7.2V , 3400mAh *2 (Removable battery, dedicated charger)
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Work time	Over 20 hours (when applying controller network mode)
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External power	9~24VDC
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ENVIRONMENT

Work Temperature	-20°C~+60°C
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Storage Temperature	-20°C~+70°C
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Shock Resistance	Can withstand a 1.5m drop at normal temperatures
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Protection Rating	IP68
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PHYSICAL

Materials	Magnesium alloy main body, ABS/PC top cover
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Dimensions	Ø160mm*103mm
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Weight	850g(without battery)
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ACCESSORIES

T40Pro	1 Unit
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External Battery	2 PCS
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Battery Charging Cradle	1 PCS
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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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