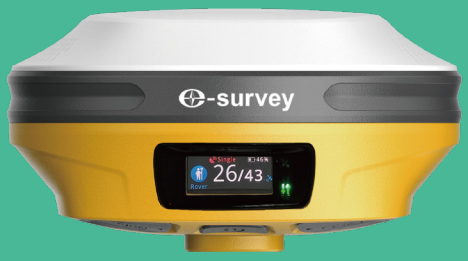
e-survey

eRTK30

VISUAL GNSS RECEIVER



The eSurvey eRTK30 GNSS receiver integrates with dual-camera technology for more applications. Its visual survey technology enables you to measure the point without physically reaching the point. That gives you flexibility in the field and maximises productivity in your projects. It supports immersive 3D stakeout and helps you do stakeout faster and improves your working efficiency. The eRTK30 is a perfect choice for diverse surveying applications.

GNSS Receiver

Visual Survey: Measuring What You See

Visual survey technology provides accurate positioning coordinates from images and videos captured in seconds. Measure what you see, get the coordinates of previously unreachable and signal-blocked points.

Multi-constellation and Multi-frequency

With 1408 channels of GNSS tracking, it provides stable and reliable accuracy. All GNSS signals come with the standard including GPS, BDS, GLONASS, Galileo, QZSS, NavIC, SBAS and L-Band.

CAD AR Stakeout: Improved Efficiency

eRTK30 offers an immersive, intuitive perspective of the site to implement the stakeout. CAD drawings are directly marked on the interface, thus there is no need to choose each point individually. The CAD AR stakeout is a highly effective tool for optimizing stakeout operations and simplifying complex construction tasks in a variety of construction scenarios.

Web UI

It allows users to view position status, set up working mode, download data, and update firmware from the Web user interface with any smart phone, tablet, or PC.

Max 60° Tilt Survey: A Different Way of Working

- Quickly measure accurate points while standing or walking without leveling the pole.
- Concentrate on where the pole tip needs to go, which is especially useful during a stakeout.
- Easily start a survey in environments that are hard to reach, such as building corners and slopes.
- No longer worry about the movement of the pole when measuring, provided that the pole tip is stationary.

Website

Social media

Product Specification

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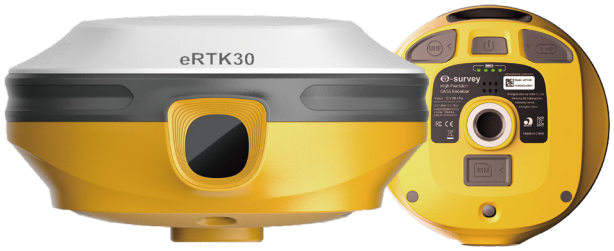

GNSS Performance		
Satellites tracking	GPS	L1 C/A, L1C, L2P (Y), L2C, L5
	BDS	B1I, B2I, B3I, B1C, B2a, B2b
	GLONASS	L1, L2, L3
	Galileo	E1, E5a, E5b, E6
	QZSS	L1, L2, L5
	NavIC	L5
	SBAS	WAAS, GAGAN, MSAS, EGNOS, SDCM, BDS
	L-Band	B2b PPP (Only for the Asian-Pacific region),HAS[1]
Channels		1408
Signal reacquisition		< 1 second
Cold start		< 30 seconds
Warm start		< 20 seconds
Hot start		< 5 seconds
RTK signal initialization		< 5 seconds
Initialization reliability		> 99.9%
Update rate		20Hz
High precision static		■ H: 2.5 mm + 0.1 ppm (RMS) ■ V: 3.5 mm + 0.4 ppm (RMS)
Static and fast static		■ H: 2.5 mm + 0.5 ppm (RMS) ■ V: 5 mm + 0.5 ppm (RMS)
RTK		■ H: 8 mm + 1 ppm (RMS) ■ V: 15 mm + 1 ppm (RMS)
Standard point positioning		■ H: 1.5 m (RMS) ■ V: 2.5 m (RMS)
Code differential		■ H: 0.4 m (RMS) ■ V: 0.8 m (RMS)
SBAS		■ H: 0.3 m (RMS) ■ V: 0.6 m (RMS)
Correction data		RTCM V3.X, RTCM2.X, CMR
Data output		GGA, ZDA, GSA, GSV, GST, VTG, RMC, GLL, Binary

Power Supply	
Battery	Rechargeable Built-in Lithium-ion battery x 1 3.6 V ~ 13400 mAh
Voltage	Type-C PD 12V/1.5A
Working time	13 hours as visual survey/visual stakeout
Charging time	Typically 5 hours

Internet Modem	
Supported band	Global 4G LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/ B13/B18/B19/B20/B25/B26/B28 LTE TDD: B38/B39/B40/B41 WCDMA: B1/B2/B4/B5/B6/B8/B19 GSM: 850/900/1800/1900 MHz

1: It will be supported through future firmware update.
2: It is only available for radio protocol "Satel".

System	
Operation system	Linux
Internal memory	8 GB
Bluetooth	BT5.0+EDR, BLE
Wi-Fi	802.11a/b/g/n/ac
SIM card	✓
TNC	Connect internal radio with antenna
Type-C port	Charge and data transmission
Web UI	View status, update firmware, set up working mode, download data, etc.
Intelligent voice	Broadcast working mode and status
Tilt sensor	MEMS Fast initialization, dynamic tilt survey up to 60°

Physical	
Dimension	Φ134 mm × H74 mm
Weight	903 g
Operating temperature	-30℃ ~ +65℃
Storage temperature	-40℃ ~ +80℃
Water / dust proof	IP67
Shock	■ Withstand topple over from a 2 m survey pole onto hard surfaces ■ Survive a 1.2 m free drop
Vibration	Vibration resistant
Humidity	Up to 100%
Indicators	Satellites, datalink, battery
Button	Power button, short press to voice broadcast working mode and status
Screen	1.1" colorful screen
Certificate	CE, FCC, NGS, IGS

Internal Radio	
Type	TX and RX
Emitting power	1 W
Operation range	3-5 km typically
Frequency range	410 - 470 MHz
Channel spacing	6.25 kHz[2]/ 12.5 kHz / 25 kHz
Protocol	TrimTalk 450s, PCC-GMSK, PCC-4FSK, Satel, Satel_ADL, HITARGET, TrimTalk, HZSZ, South, TrimMark III, GEOTALK, GEOMARK, PCCFST, PCCFST_ADL

Visual Configuration	
Visual stakeout	
Pixel	2 MP
Frame	Image: 30 Hz
FOV	72°

Visual Configuration	
Visual survey	
Pixel	2 MP
Frame	Video: 30 Hz Image: 5 Hz
FOV	75°
Image accuracy	2~4 cm, range 2~15 m

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