e-survey

eRTK60

FULL-FEATURED VISUAL GNSS RECEIVER

The eSurvey new eRTK60 GNSS receiver integrates high performance GNSS, IMU and dual-camera technologies to provide more reliable and diverse measurement results. Visual survey technology enables you to measure the point without physically reaching it, thereby giving you more flexibility in the field and maximizing productivity in your projects. The upgraded built-in radio supports longer communication distances. The extended working endurance of the eRTK60 is guaranteed by its hot-swap batteries. Its colorful LED screen also offers a more intuitive working status and operation interface.

GNSS Receiver

Visual Survey: Measuring What You See

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

Colorful LED Display

View the primary status and basic information, set the work mode, and operate the device, allowing for more convenient and direct interactive actions.

CAD AR Stakeout: Improved Efficiency

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.

Advanced Long-Range Tx/Rx UHF Modem

Integrated with the long range UHF modem, the eRTK60 is compatible with traditional major radio protocols. The maximum communication distance can reach 10 km with 1W transmit power in urban environments.

Hot-swappable Batteries: Providing Uninterrupted Service

Designed with a symmetric battery compartment and driven by sufficient charged batteries on hand, the hot-swap battery power system of the eRTK60 is meant to improve power availability while eliminating power-related downtime.

Website & Social media

Product Specification

eRTK60

FULL-FEATURED VISUAL GNSS RECEIVER

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	Removable and rechargeable Hot-swappable Lithium-ion battery x 2 7.2 V ~ 3400 mAh x2
Voltage	5-pin: 9 - 28V DC 2A, 15V/2A(DC Rated) Type-C: PD 12V/1.5A
Working time	10 hours as UHF base with 2W transmitting

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 varies with the obstacle, terrain and protocols.

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
5-pin port	Connect to external radio and external power
Type-C port	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	Φ156 mm × H74.5 mm
Weight	931 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
Button	Power button, function button
Screen	1.1" colorful screen
Certificate	CE, FCC, NGS, IGS

Internal Radio	
Type	TX and RX
Emitting power	1W/2W
Operation range	3-5 km typically up to 15 km with optimal conditions[2]
Frequency range	410 - 470 MHz
Channel spacing	12.5 kHz / 25 kHz
Protocol	elink_Ultra, geotalk_Ultra, FARLINK, TRIMTALK, TRIMMK III , SOUTH, TRANSEOT, GEOTALK, GEOMK3, SATEL, HITARGET, HZSZ, PCCEOT, PCCEOT_SATEL, PCCFST, PCCFST_ADL, SATEL_ADL

Visual Configuration	
Visual stakeout	
Pixel	2 MP
Frame Rate	30 FPS
FOV	72°

Visual Configuration	
Visual survey	
Pixel	2 MP
FOV	88°
Image accuracy	2~4 cm, range 2~15 m

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