



E100

Network RTK Receiver

E100 is a network receiver by eSurvey GNSS. The durable IP67 design makes it possible to work in various of environments. Multi constellation and frequency tracking always gives a Fixed solution for your job. Thanks for the small-size design, E100 is suitable for different applications such as car and machine control.

Multi-constellation and multi-frequency

With 800 channels of GNSS tracking, E100 provides stable and reliable accuracy. All GNSS signals are coming with standard including GPS, BDS, GLONASS, GALILEO, QZSS and SBAS.

MEMS Dynamic Tilt Survey

eSurvey's innovation tilt survey solution provides a surprising experience. The sensor is adapted to various of working environments and can be ready within 10 sec. Maximum 60 ° incline angle ensures a tilt-to-go survey without stopping your work.

L-band Atlas

Atlas is a service to provide global precision correction service over L-band satellites. With ATLAS subscription, E100 is able to achieve centimeter accuracy without any base station.

aRTK

Powered by Atlas, the innovative aRTK technology operates on any Atlas-capable device by enabling it to maintain RTK-level accuracy, availability, and reliability when RTK corrections fail without additional cost.

Web UI

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

Intelligent Voice

E100 will broadcast voice automatically to remind user the solution status is changed. It is also able to manually broadcast current working mode and solution status by short pressing power button.

Lightweight and Small-size

E100 is only 900g and is good for hand carrying. The small size design makes it possible for various of applications such as car and machine control.

Rugged Design

E100 main body is using magnesium materials to provide strong shock and vibration resistant characteristics. IP67 certification ensures operation in various of tough environments.

Product Specification

GNSS		Voltage	9~28 VD, with over-voltage protection
Satellites Tracking	GPS: L1CA/L1P/L1C/L2P/L2C/L5 BDS: B1I/B2I/B3I/B1C/B2a/B2b/ ACEBOC GLONASS: G1/G2/G3, P1/P2 GALILEO: E1/E5a/E5b/E6/ALTBOC QZSS: L1CA/L1C/L2C/L5/LEX IRNSS: L5 SBAS ¹ : L1, L5 L-Band: Atlas H10/H30/Basic	Working Time	RTK: 10 hours Static: 14 hours
		Charging Time	Typically 4 hours
		Internet Modem	
		Support Band	Global 4G
		Communication	
Channels	800	Bluetooth	BT 5.0, BLE
Signal Reacquisition	< 1 sec	WIFI	802.11 b/g/n(HT20)/ac
Cold Start	< 60 sec	SIM Card	Support
Warm Start	< 30 sec	5-pin Port	Connect to external radio and power NMEA data output
Hot Start	< 10 sec	Type-C Port	Charge and data transmission
RTK Signal Initialization	< 8 sec	Web UI	View status, update firmware, set up working mode, download data
Initialization Reliability	> 99.9%	Intelligent Voice	Broadcast working status
Update Rate	10 Hz standard, up to 50 Hz	NMEA Output	GGA, ZDA, GSA, GSV, GST, VTG, RMC, GLL, Binary
Operation System	Linux	Correction Data	CMR, CMR+, RTCM2, RTCM3, RTCM32
Internal Memory	8 GB (32GB Customizable)	MEMS	Fast initialization, dynamic tilt survey up to 60°
Performance		Physical	
High Precision Static	H: 2 mm + 0.1 ppm V: 3 mm + 0.4 ppm	Dimension	Φ148 mm x H60 mm
Static/Fast Static	H: 2.5 mm + 0.1 ppm V: 3.5 mm + 0.4 ppm	Weight	900±5 g
RTK	H: 8 mm + 1 ppm V: 15 mm + 1 ppm	Operating Temperature	-40℃ ~ +65℃
Code Differential	H: 0.25 m V: 0.45 m	Storage Temperature	-45℃ ~ +80℃
SBAS	H: 0.3 m V: 0.6 m	Water/Dust Proof	IP67
L-Band	Atlas H10: 4 cm RMS Atlas H30: 15 cm RMS Atlas Basic: 30 cm RMS	Shock	Survive a 2 m drop on concrete floor
Power Supply		Vibration	Vibration resistant
Battery	Rechargeable and built-in Lithium-ion battery, 7.2 V ~ 6800 mAh	Humidity	Up to 100%
		Indicators	Satellites, datalink, battery, Bluetooth
		Button	Power button, short press to voice broadcast status
		Certificate	CE, FCC, NGS Calibration

1. SBAS supports WAAS, EGNOS, GAGAN, SDCM, MSAS.



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