

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/ALTB0C 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	
	Channels	800	Charging Time	Typically 4 hours
	Signal Reacquisition	< 1 sec	Internet Modem	
	Cold Start	< 60 sec	Support Band	Global 4G
	Warm Start	< 30 sec	Communication	
	Hot Start	< 10 sec	Bluetooth	BT 5.0, BLE
	RTK Signal Initialization	< 8 sec	WIFI	802.11 b/g/n(HT20)/ac
	Initialization Reliability	> 99.9%	SIM Card	Micro SIM card
	Update Rate	10 Hz standard, up to 50 Hz	5-pin Port	Connect to external radio and power NMEA data output
	Operation System	Linux	Type-C Port	Charge and data transmission
Internal Memory	8 GB (32GB Customizable)	Web UI	View status, update firmware, set up working mode, download data	
Performance		Intelligent Voice	Broadcast working status	
High Precision Static	H: 2 mm + 0.1 ppm V: 3 mm + 0.4 ppm	NMEA Output	GGA, ZDA, GSA, GSV, GST, VTG, RMC, GLL, Binary	
Static/Fast Static	H: 2.5 mm + 0.1 ppm V: 3.5 mm + 0.4 ppm	Correction Data	CMR, CMR+, RTCM2, RTCM3, RTCM32	
RTK	H: 8 mm + 1 ppm V: 15 mm + 1 ppm	MEMS	Fast initialization, dynamic tilt survey up to 60°	
Code Differential	H: 0.25 m V: 0.45 m	Physical		
SBAS	H: 0.3 m V: 0.6 m	Dimension	Φ148 mm x H60 mm	
L-Band	Atlas H10: 4 cm RMS Atlas H30: 15 cm RMS Atlas Basic: 30 cm RMS	Weight	900±5 g	
Power Supply		Operating Temperature	-40°C ~ +65°C	
Battery	Rechargeable and built-in Lithium-ion battery, 7.2 V ~ 6800 mAh	Storage Temperature	-45°C ~ +80°C	
		Water/Dust Proof	IP67	
		Shock	Survive a 2 m drop on concrete floor	
		Vibration	Vibration resistant	
		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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