Survey



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

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



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