e-survey

E100
NETWORK GNSS RECEIVER

The eSurvey E100 is a network receiver that will get more done faster than you thought possible. This entry-level GNSS solution handles multiple frequencies from multiple constellations, improving position accuracy. Thanks to its ultra-compact design and built-in RTK assistant function, the E100 is an ideal rover station receiver for a CORS system. The E100 is suitable for different applications such as car and machine control.

GNSS Receiver

Compact Design: Easy to Carry

Easily carry it in a variety of complex environments, benefiting from its lightweight and compact design

Intelligent Voice

The E100 can automatically broadcast voice alert to the user when the solution status changes. It also broadcasts current working mode and solution status manually by short pressing the power button.

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 smartphone, 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.

RTK Aid Function: Uninterrupted Work

Work without interruption even when RTK corrections fail, powered by our RTK aid function.

Rugged Design

The main body of the E100 is made of magnesium alloy materials which has strong shock and vibration resistance. IP67 certification ensures operation in variety of tough environments.
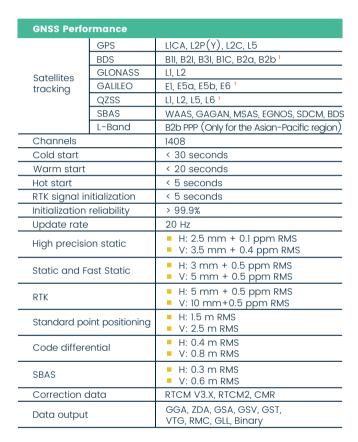
Website   Social media

Product Specification

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GNSS Performance

Satellites tracking	GPS	L1CA, L2P(Y), L2C, L5
	BDS	B1I, B2I, B3I, B1C, B2a, B2b [1]
	GLONASS	L1, L2
	GALILEO	E1, E5a, E5b, E6 [1]
	QZSS	L1, L2, L5, L6 [1]
	SBAS	WAAS, GAGAN, MSAS, EGNOS, SDCM, BDS
	L-Band	B2b PPP (Only for the Asian-Pacific region)
Channels		1408
Cold start		< 30 seconds
Warm start		< 20 seconds
Hot start		< 5 seconds
RTK signal initialization		< 5 seconds
Initialization reliability		> 99.9%
Update rate		20 Hz
High precision static		■ H: 2.5 mm + 0.1 ppm RMS ▼ V: 3.5 mm + 0.4 ppm RMS
Static and Fast Static		■ H: 3 mm + 0.5 ppm RMS ▼ V: 5 mm + 0.5 ppm RMS
RTK		■ H: 5 mm + 0.5 ppm RMS ▼ V: 10 mm+0.5 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, CMR
Data output		GGA, ZDA, GSA, GSV, GST, VTG, RMC, GLL, Binary

Power Supply

Battery	Rechargeable Built-in Lithium-ion battery x 1 7.2V ~ 6900 mAh
Voltage	9 - 28V dc
Working time	Up to 9 hours
Charging time	Typically 4 hours

1: It is not supported for now.
It will be supported after firmware update in the future.

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 ■ UMTS: B1, B2, B4, B5, B6, B8, B19 ■ GSM: B2, B3, B5, B8

System

Operation system	Linux
Internal memory	8 GB
Bluetooth	BT5.0+EDR, BLE
Wi-Fi	802.11 a/b/g/n/ac
SIM card	✓
5-pin port	Connect to external radio and external power; NMEA output
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
MEMS	Fast initialization, dynamic tilt survey up to 60°

Physical

Dimension	Φ148 mm x H77 mm
Weight	900 g
Operating temperature	-30°C ~ +65°C
Storage temperature	-40°C ~ +80°C
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, Bluetooth
Button	Power button, short press to voice broadcast working mode and status
Certificate	CE, FCC, NGS, IGS