e-survey

E300 Pro

FULL-FEATURED GNSS RECEIVER

The eSurvey E300 Pro is a fully functional GNSS receiver with an extremely compact design by eSurvey GNSS. With its high-performance GNSS board, it can track all present constellations and satellites. The GNSS, Wi-Fi, Bluetooth, and GSM four-in-one antenna, stable data transmission, RTK Aid, and IMU function, make it suitable for all surveying applications.

GNSS Receiver

Power Indicator: An Intelligent Hint of Working Time

Quickly check the remaining battery power in real time and figure out the working time without data loss.

Advanced Long-Range Tx/Rx UHF Modem

Integrated with the long range UHF modem, the E300 Pro is compatible with traditional major radio protocols. The maximum communication distance can reach 10 km with 1W transmit power urban environments.

Rugged Design: Better Resistance to Shock and Fall

Use it for many years, for it is strongly made and capable of withstanding rough handling.

RTK Aid Function: Uninterrupted Work

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

Multi-constellations and Multi-frequency

With 1408 channels of GNSS tracking, the E300 Pro provides stable and reliable centimeter-level positioning accuracy in real-time to suit any field data collection applications. All GNSS signals are supported, including GPS, BDS, GLONASS, Galileo, QZSS, NavIC, SBAS and L-Band.

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.

Website & Social media

Product Specification

E300 Pro

FULL-FEATURED 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		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: 2.5 mm + 0.5 ppm (RMS) ■ V: 5 mm + 0.5 ppm (RMS)
RTK		■ H: 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	Rechargeable Built-in Lithium-ion battery x 1 7.2V ~ 6800 mAh
Voltage	5-pin: 9 - 28V DC 2A, 15V/2A(DC Rated) Type-C: PD 12V/1.5A
Working time	Up to 24 hours as rover
Charging time	Typically 4 hours

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

System	
Operation system	Linux
Internal memory	8 GB
Bluetooth	BT5.0+EDR, BLE
Wi-Fi	802.11 a/b/g/n/ac
SIM card	✓
TNC	Connect internal radio with antenna
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
Tilt sensor	MEMS Fast initialization, dynamic tilt survey up to 60°

Physical	
Dimension	Φ158 mm x H53 mm
Weight	940 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, battery, Bluetooth
Button	Power button, short press to voice broadcast working mode and status
Certificate	CE, FCC, NGS, IGS

Internal Radio	
Type	TX and RX
Emitting Power	1 W
Operation Range	3 - 5 km typically[2]
Frequency range	410 - 470 MHz, 902.4 - 928 MHz[4]
Channel spacing	6.25 kHz[3]/ 12.5 kHz / 25 kHz[4]
Protocol	TrimTalk 450s, PCC-GMSK, PCC-4FSK, Satel, Satel_ADL, HITARGET, TrimTalk, HZSZ, South, TrimMark III, GEOTALK, GEOMARK, PCCFST, PCCFST_ADL, 900M Hopping[4]

1: It will be supported through future firmware update.
2: It varies with the obstacle and terrain.
3: It is only available for radio protocol "Satel", and the radio firmware is later than G001.02.27.
4: It is only available for certain radio module.

+86 400-999-8088

e-survey
esurvey-gnss.com