

# E200

## DESIGNED FOR ROVER STATION

Gain a competitive edge with the eSurvey E200 GNSS Receiver. The E200 is equipped with advanced technology to make sure you have maximum productivity in the field. The durable IP67 design makes it possible to work in tough environments. Combining 4G GSM modem, internal radio (Rx only), RTK Aid function and 60°inclination IMU function, the E200 is the best choice for a rover station receiver.



GNSS Receiver

### Lightweight Design: Easy to Carry

Easily carry it in various complex environments and use it in any rover station scenarios, benefitting from its lightweight and compact design.

### 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.

### Integrated RX Radio

The built-in Global 4G Network and RX radio module allows the E200 to work perfectly as a rover station.

### 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.

### Multi-constellations and Multi-frequency

With 1408 channels of GNSS tracking, the E200 provides stable and reliable accuracy. All GNSS signals can be tracked, including GPS, BDS, GLONASS, GALILEO, QZSS, SBAS, L-Band and NAVIC.



Website



Social media

# Product Specification

# E200

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GNSS Performance		
Satellites tracking	GPS	L1CA, L2P(Y), L2C, L5
	BDS	B1I, B2I, B3I, B1C, B2a, B2b
	GLONASS	L1, L2
	GALILEO	E1, E5a, E5b, E6 <sup>1</sup>
	QZSS	L1, L2, L5, L6 <sup>1</sup>
	NavIC	L5 <sup>1</sup>
	SBAS	WAAS, GAGAN, MSAS, EGNOS, SDCM
	L-Band	B2b PPP (Only for the Asian-Pacific region), HAS <sup>1</sup>
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	<ul style="list-style-type: none"> <li>■ H: 2.5 mm + 0.1 ppm RMS</li> <li>■ V: 3.5 mm + 0.4 ppm RMS</li> </ul>	
Static and Fast Static	<ul style="list-style-type: none"> <li>■ H: 3 mm + 0.5 ppm RMS</li> <li>■ V: 5 mm + 0.5 ppm RMS</li> </ul>	
RTK	<ul style="list-style-type: none"> <li>■ H: 5 mm + 0.5 ppm RMS</li> <li>■ V: 10 mm + 0.5 ppm RMS</li> </ul>	
Standard point positioning	<ul style="list-style-type: none"> <li>■ H: 1.5 m RMS</li> <li>■ V: 2.5 m RMS</li> </ul>	
Code differential	<ul style="list-style-type: none"> <li>■ H: 0.4 m RMS</li> <li>■ V: 0.8 m RMS</li> </ul>	
SBAS	<ul style="list-style-type: none"> <li>■ H: 0.3 m RMS</li> <li>■ V: 0.6 m RMS</li> </ul>	
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

Internet Modem	
Supported band	Global 4G <ul style="list-style-type: none"> <li>■ LTE FDD: B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B25, B26, B28</li> <li>■ LTE TDD: B38, B39, B40, B41</li> <li>■ UMTS: B1, B2, B4, B5, B6, B8, B19</li> <li>■ GSM: B2, B3, B5, B8</li> </ul>

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
MEMS	Fast initialization, dynamic tilt survey up to 60°

Physical	
Dimension	Φ152 mm x H92 mm
Weight	945 g
Operating temperature	-30°C - +65°C
Storage temperature	-40°C - +80°C
Water / dust proof	IP67
Shock	<ul style="list-style-type: none"> <li>■ Withstand topple over from a 2 m survey pole onto hard surfaces</li> <li>■ Survive a 1.2 m free drop</li> </ul>
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	RX
Frequency range	410 - 470 MHz
Channel spacing	6.25 KHz <sup>2</sup> / 12.5 KHz / 25 KHz
Protocol	Satel, PCC, TrimTalk, TrimMark III, TRANSEOT (PCC-GMSK), South, HiTarget, GEOTALK, GEOMK3, HZSZ

1: It will be supported through future firmware update.

2: It is only available for radio protocol "Satel", and the radio firmware is later than G001.02.27.