



# E800 GNSS Receiver

E800 is an integrated intelligent receiver of a new generation of surveying products. It is a high-end of RTK receiver, that has a magnesium alloy structural frame. It has a highly integrated structure that provides it with excellent heat dissipation and anti-interference characteristics, high precision, increased stability, strong compatibility and environmental applicability.

## Built-in 5W radio

Up to 10km transmission distance, 410-470MHz full-band, compatible with major transmission protocols.

## Superior anti-interference

Stronger signal acquisition capability in harsh environments.

## Built-in battery (13600mAh)

For longer lasting operation.

## Magnesium-aluminum alloy design

Excellent heat dissipation.

## Built-in 4G network module

Global 4G network module, support NTRIP mode.

## LCD Display

Sunlight viewable screen, touchscreen enabled.

## Built-in Bluetooth, WiFi communication module

With smart WebUI, it will be more convenient to view device status and configure the working mode.

## Tilt survey

The E800 receiver integrates MEMS sensor, combined with a new tilt survey algorithm and SurPad4.0 software operation, the accuracy of coordinate data can be easily achieved within 60° tilt angle.

# Product Specification

| GNSS Performance                     |   | Internal Radio                 |  |
|--------------------------------------|---|--------------------------------|--|
| Channel                              | 336                                       | Frequency Range                | 410 - 470 MHz  |
| Satellite Tracking                   | GPS: L1CA / L2E/L2C/L5                    | Channel Spacing                | 12.5 KHz / 25 KHz  |
|                                      | GLONASS: L1CA / L2CA / L3 CDMA            | Emitting Power                 | 2 W / 5 W  |
|                                      | BeiDou: B1 / B2 / B3                      | Operating Range                | 5-10km typically   |
|                                      | GALILEO: E1 / E5A / E5B / E5AltBOC / E6   | <b>Communication</b>           |  |
|                                      | SBAS: L1CA / L5                           | Memory                         | Internal 32G   |
|                                      | QZSS: L1CA / L1SAIF / L1C / L2C / L5      | 5-pin                          | External radio and external power, RS232                         |
|                                      | NAVIC: L5                                 | Type-C                         | Charge and access internal storage                               |
| Update rate                          | 50Hz                                      | SIM Card                       | Micro SIM card   |
| <b>Performance (RMS)<sup>1</sup></b> |   | Cellular                       | Global Version   |
| Signal Reacquisition                 | < 1 sec                                   |                                | GSM/UMTS/LTE   |
| Hot Start                            | < 10 sec                                  | Bluetooth                      | BT 5.0, BLE  |
| Initialization Reliability           | > 99.9%                                   | WIFI                           | 802.11ac/n(HT20)/a/b/g   |
| Static Accuracy                      | Horizontal: 2.5 mm + 0.5 ppm              | WebUI                          | To manage settings, status,<br>update firmware and download data |
|                                      | Vertical: 5 mm + 0.5 ppm                  | Voice                          | Support smart voice broadcast                                    |
| RTK Accuracy                         | Horizontal: 8 mm + 1 ppm                  | MEMS                           | Support, up to 60°   |
|                                      | Vertical: 15 mm + 1 ppm                   | NMEA Output                    | GGA, ZDA, GSA, GSV, GST, VTG,<br>RMC, GLL                        |
| Code Differential                    | Horizontal: 0.25 m                        | <b>Physical Specifications</b> |  |
| SBAS Accuracy                        | Horizontal: 0.3 m                         | Dimension                      | 154 * 154 * 76mm (L * W * H)                                     |
| <b>Power Supply</b>                  |   | Weight                         | 1.5KG  |
| Battery                              | Built-in rechargeable battery 7.2V/13.6Ah | Screen                         | 1.46" colorful, touchable screen                                 |
| Voltage                              | 9~28 V DC, with over-voltage protection   | Operating Temperature          | -30 °C ~ +65 °C  |
| Operating period                     | Typically 12 hours - 2W, base radio       | Storage Temperature            | -40 °C ~ +80 °C  |
|                                      | Typically 8 hours - 5W, base radio        | Water/ Dust Proof              | IP67   |
|                                      | Typically 15 hours - base network mode    | Shock                          | Survive a 2 m (6.6 ft) pole drop,<br>1.2 m (3.9 ft) free fall    |
|                                      | Typically 15 hours - rover radio          | Vibration                      | Vibration resistant  |
|                                      | Typically 15 hours - rover network        | Humidity                       | Up to 100%   |
| Charge Time                          | PD quick charge, typically 5 hours        | Indicator                      | 4 indicators, GNSS/BT/UHF/PWR                                    |
|                                      |   | Certificate                    | CE, FCC, IP67  |

Illustrations and technical specifications are subject to change without notice.

1. The accuracy claimed is based on the optimal environment.



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