



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

