![CASTRA logo]

E800

High-performance RTK Receiver

E800 is a high-performance product by eSurvey GNSS. The durable IP67 design makes it possible to work in various of environments. Multi constella tion and frequency tracking always gives a Fixed solution for your job. The colorful touch screen is convenient for quick configurations.

Multi-constellation and multi-frequency

With 800 channels of GNSS tracking, E800 provides stable and reliable accuracy. All GNSS signals are coming with standard including GPS, BDS, GLONASS, GALILEO, QZSS, IRNSS and SBAS.

Batteries for Long Time Operation

E800 is equipped with 13600 mAh Li-ion battery. There is no warry for long time field operation up to 15 hours. The USB type-c quick charge promise a full charge within 5 hours.

MEMS Dynamic Tilt Survey

eSurvey's innovation tilt survey solution provides a surprising experience. The sensor is adapted to various of working environments and can be ready within 10 sec. Maximum 60 ° incline angle ensures a tilt-to-go survey without stopping your work.

L-band Atlas

Atlas is a service to provide global precision correction service over L-band satellites. With ATLAS subscription, E800 is able to achieve centi meter accuracy without any base station.

aRTK

Powered by Atlas, the innovative aRTK technology operates on any Atlas-capable device by enabling it to maintain RTK-level accuracy, avail ability, and reliability when RTK corrections fail without additional cost.

5-watt Internal Radio

The 5-watt internal radio modem extremely extend the working range up to 15Km. User can adjust the radio power between 2w and 5w depending on the demand.

Colorful Touch Screen

The 1.45" colorful touch screen is viewable in sunlight. The position status is under control with a glimpse. Working mode is settle down by simply sliding the screen.

Rugged Design

E800 main body is using magnesium materials to provide strong shock and vibration resistant characteristics. IP67 certification ensures operation in various of tough environments.

Product Specification

GNSS		Type	TX and RX
Satellites Tracking	GPS: L1CA/L1P/L1C/L2P/L2C/L5 BDS: B1I/B2I/B3I/B1C/B2a/B2b/ ACEBOC GLONASS: G1/G2/G3, P1/P2 GALILEO: E1/E5a/E5b/E6/ALTBOC QZSS: L1CA/L1C/L2C/L5/LEX IRNSS: L5 SBAS1: L1/L5 L-Band: Atlas H10/H30/Basic	Frequency Range	410 ~ 470 MHz
		Channel Spacing	12.5 KHz / 25 KHz
		Emitting Power	5 W
		Operation Range	8 ~ 10 Km typically 15Km with optimal conditions[2]
		Protocol	Satel, PCC, TrimTalk, TrimMark III, South, HiTarget
Channels	800		
Signal Reacquisition	< 1 sec	**Internet Modem**	
Cold Start	< 10 sec	Support Band	Global GSM /WCDMA/LTE
Warm Start	< 10 sec		
Hot Start	< 10 sec	**Communication**	
RTK Signal Initialization	< 8 sec	Bluetooth	BT 5.0, BLE
Initialization Reliability	> 99.9%	WIFI	802.11 ac/n(HT20)/a/b/g
Update Rate	10 Hz standard, up to 50 Hz	SIM Card	Micro SIM card
Operation System	Linux	5-pin Port	Connect to external radio and power, NMEA output
Internal Memory	32 GB	Type-C Port	Charge and internal storage access
		TNC Port	Connect to internal radio antenna
Performance		Web UI	View status, update firmware, set up working mode, download data
High Precision Static	H: 2mm + 0.1 ppm V: 3mm + 0.4 ppm	Intelligent Voice	Broadcast working status
Static/Fast Static	H: 2.5mm + 0.1 ppm V: 3.5mm + 0.4 ppm	NMEA Output	GGA, ZDA, GSA, GSV, GST, VTG, RMC, GLL, Binary
RTK	H: 8mm + 1.0 ppm V: 15mm + 1 ppm	Correction Data	CMR, CMR+, RTCM2, RTCM3, RTCM32
Code Differential	H: 0.25 m V: 0.45 m	MEMS	Fast initialization, dynamic tilt survey up to 60°
SBAS	H: 0.3 m V: 0.6 m	**Physical**	
		Dimension	154 mm x 154 mm x 76 mm
L-Band	Atlas H10: 4 cm RMS Atlas H30: 15 cm RMS Atlas Basic: 30 cm RMS	Weight	1.5 kg
		Screen	1.45'' colorful touchable screen
		Operating Temperature	-40℃ ~ +65℃
Power Supply		Storage Temperature	-45℃ ~ +80℃
Battery	Rechargeable and built-in Lithium-ion battery, 7.2 V ~ 13.6 Ah	Water/Dust Proof	IP67
		Shock	Survive a 2 m drop on concrete floor
Voltage	9~28 V DC with over-voltage protection	Vibration	Vibration resistant
		Humidity	Up to 100%
Working Time	Up to 15 hours	Indicators	Satellites, datalink, battery, Bluetooth
Charging Time	Typically 5 hours	Button	Power button, short press to voice broadcast status
		Certificate	CE, FCC, NGS Calibration
Internal Radio			

1. SBAS supports WAAS, EGNOS, GAGAN, SDCM, MSAS.
2. Depend on the environment and electromagnetic interference.

CASTRA

Produced by
e-survey