

# E100



# E100

## SUMMARY

- Overview
- Key Features
- Specifications
- Configurations
- Software



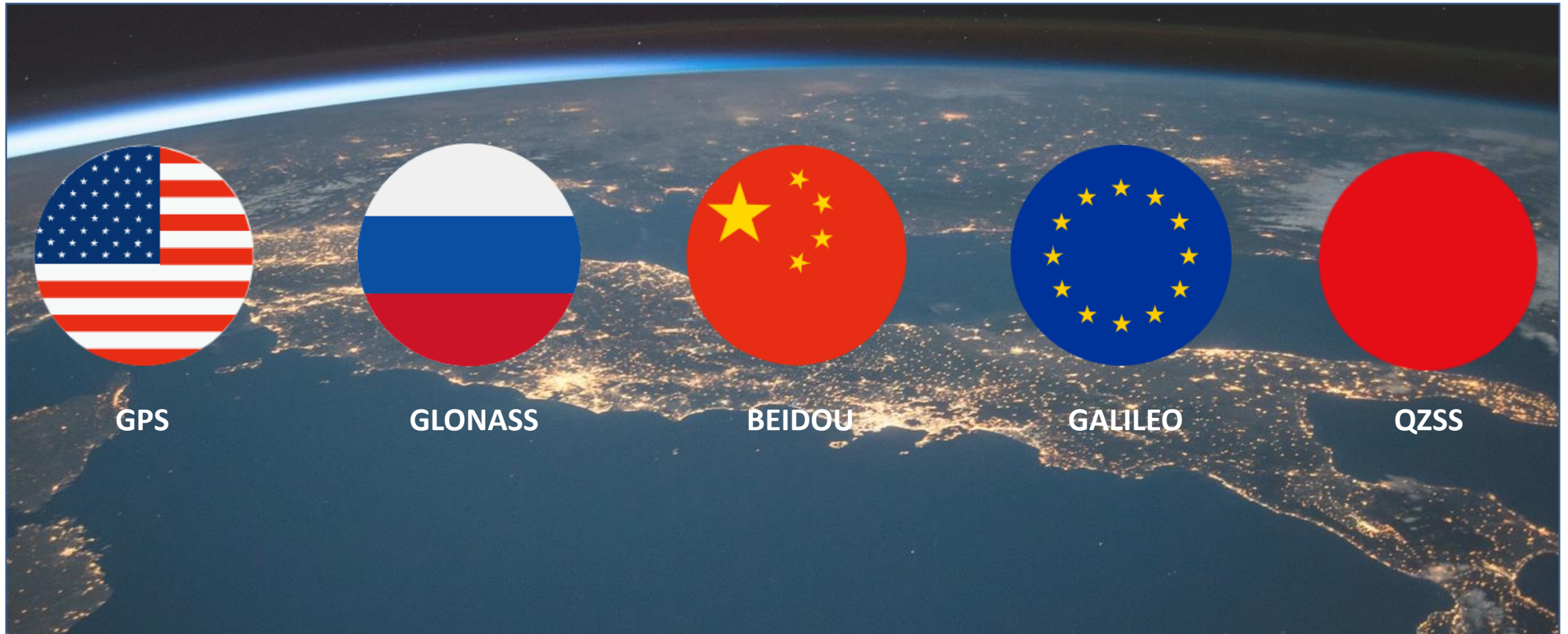
# Overview

- $\Phi 148\text{mm} * 62\text{mm}$
- 900g
- Internal 4G
- Type-C Charge
- Build-in Battery



# Key Features

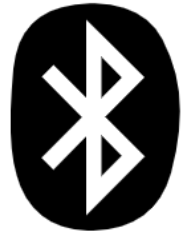
- All GNSS Signals: 488 channels



# Key Features

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- Communication



Bluetooth



WIFI

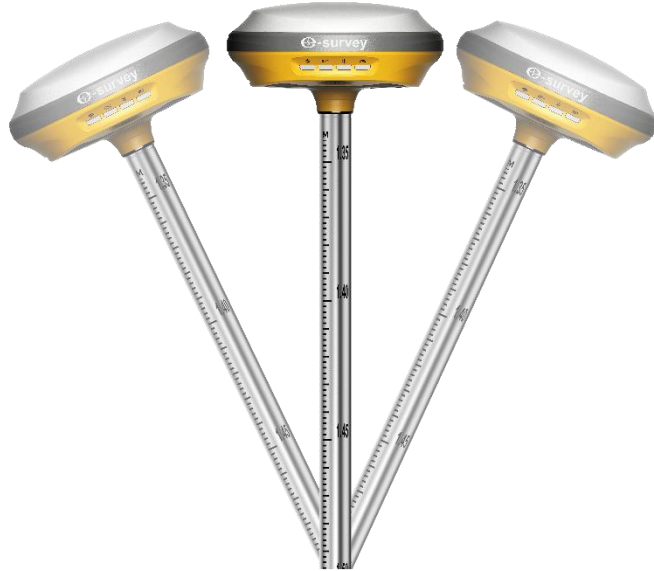


4G Network

# Key Features

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- E-bubble Tilt Survey



E100 is equipped with E-bubble sensor. To collect three different incline angle points, the software will calculate the final result.

- No Calibration
- Up to 60°
- Accuracy <3cm (30°)



# Key Features

- ATLAS: GNSS Global Correction Service



<i>Service Level</i>	<i>Position Accuracy</i>
<b>Atlas Basic</b>	50 cm 95% (30 cm <sup>RMS</sup> )*
<b>H30</b>	30 cm 95% (15 cm <sup>RMS</sup> )*
<b>H10</b>	8 cm 95% (4 cm <sup>RMS</sup> )*

Provide both Land Service and Offshore Service

# Key Features

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- ATLAS: GNSS Global Correction Service





# Key Features

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- aRTK: Free L-Band service

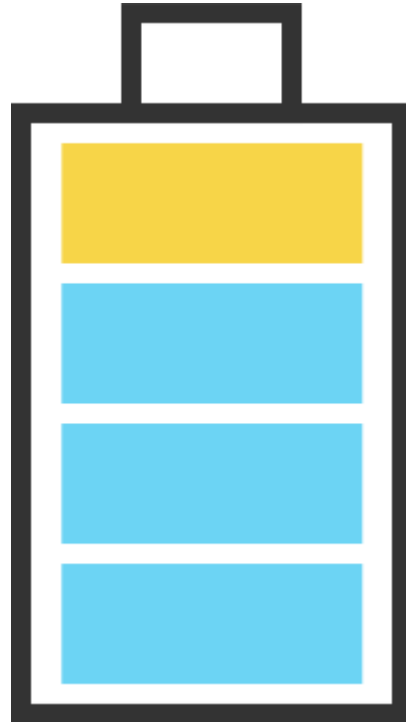


Powered by Atlas, the innovative aRTK technology operates on any Atlas-capable device by enabling it to maintain RTK-level accuracy, availability, and reliability when RTK corrections fail.

# Key Features

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- Build-in Battery



## Build-in Li-ion Battery

- 7.2V, 6900mAh
- Up to 9 hours
- Full charge within 4 hours
- Support power bank

# Key Features

- Web User Interface



The screenshot displays the web user interface for a device identified as E100 E100371900008. The interface is organized into a sidebar on the left and a main content area on the right. The sidebar includes menu items such as Status, Position, Datalink, Satellites, Information, Settings, Working Mode, Satellite Settings, Device Configuration, NMEA Message, View Logs, Configuration Set, Download, Raw Data, Backup Data, and Management. The main content area shows the following data:

- System Mode: Rover
- Longitude: 121.530386321 °
- Latitude: 31.084406283 °
- Height: 62.697 m
- Status: Single
- Satellites: 31 (GPS: 9, BeiDou: 10, Glonass: 4, Galileo: 8)
- PDOP: 0.926
- HDOP: 0.484
- TDOP: 0.513
- HRMS: 0.969
- VRMS: 1.579
- Local Time: 2019-06-10 14:42:30
- UTC Time: 2019-06-10 06:42:30

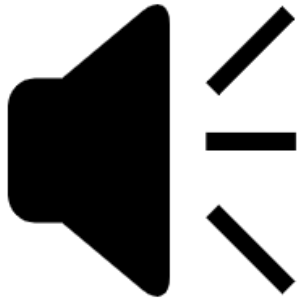
## Smart Web User Interface:

- Connect PC, phone and tablet
- View device status
- Setup working mode
- Download raw data
- Update firmware

# Key Features

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- Additional Features



Smart Voice



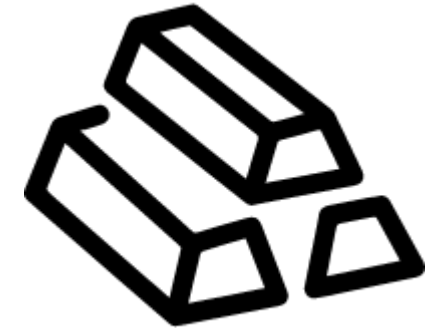
IP67



1.2m Drop



-30°C ~ +65°C



Magnesium Alloy

# Specifications

GNSS Receiver	
Channel	488
Satellite Tracking	GPS: L1CA/L1P/L1C/L2P/L2C GLONASS: G1/G2, P1/P2 BeiDou: B1/B2/B3 GALILEO: E1BC/E5a/E5b SBAS: L1/L5 QZSS: L1CA/L2C/L5/L1C L-Band: ATLAS H10/H30/H50
Update Rate	5 Hz, Up to 20 Hz
Signal Reacquisition	< 1 sec
Hot Start	< 10 sec
Initialization Reliability	> 99.9%
Internal Memory	8 GB

Performance (RMS) <sup>1</sup>	
Static Accuracy	Horizontal: 2.5 mm+0.1 ppm Vertical: 3.5 mm+0.4 ppm
RTK Accuracy	Horizontal: 8 mm+1 ppm Vertical: 15 mm+1 ppm
Code Differential	Horizontal: 0.25 m Vertical: 0.45 m
SBAS Accuracy	Horizontal: 0.3 m Vertical: 0.6 m
Power Supply	
Battery	Rechargeable, built-in Lithium-ion battery 7.2 V - 6900 mAh
Voltage	9~28 V DC external power input
Working Time	Up to 9 hours
Charge Time	Typically 4 hours











# Specifications

Communication	
5-pin	Connect to external power and radio NMEA data output
Type-C	For charging and data transmission
Sim Card	Micro SIM card
Cellular	LTE FDD: B1/B3/B5/B8
	LTE TDD: B38/B39/B40/B41
	TD-SCDMA: B34/B39
	CDMA: BC0
	WCDMA: B1/B8
	GSM: 900/1800MHz
Bluetooth	V2.1+EDR / V4.0 dual mode, Class 2
WIFI	802.11 b/g/n
WebUI	Update firmware, manage settings and status, download data
Voice	Support TTS voice broadcast
Electronic Bubble	Support








Physical Specification	
Dimensions	φ148 mm x 62 mm
Weight	900 ± 5 g
Operation Temperature	-30℃ ~ +65℃
Storage Temperature	-40℃ ~ +80℃
Water/Dust Proof	IP67
Shock	Survive a 2 m pole drop on concrete floor
	1.2 m free drop
Vibration	Vibration resist ant
Humidity	Up to 100%
Indicator	Satellites, Datalink, Battery level, Bluetooth
Certificate	CE, IP67

# Configurations

E100 base and rover are using the same accessories. We provide easy carrying soft bag or hard carrying case.

E100 Soft Bag					
NO.	Items	Quantity	Model	Description	Picture
1	E100 Soft Bag	1	---	---	
2	E100 GNSS Receiver	1	---	---	
3	Charger	1	KSA-45P-45W D5	Type-C port	
4	Charger Plug	4	---	---	
5	Power Cable	1	---	Type-C to Type-C	
6	Straps	1	---	---	
7	SIM Cover	1	---	Spare SIM Cover	
8	Warranty Card	1	---	---	

# Configurations

E100 Carrying Case					
NO.	Items	Quantity	Model	Description	Picture
1	E100 Carrying Case	1	---	Carry case for E100 Controller and bracket can be put inside	
2	E100 GNSS Receiver	1	---	---	
3	Charger	1	KSA-45P-45W D5	Type-C port	
4	Charger Plug	4	---	---	
5	Power Cable	1	---	Type-C to Type-C	
6	SIM Cover	1	---	Spare SIM Cover	
7	Warranty Card	1	---	---	

# Data Collection Software-SurPad4.0

**Positioning Informations**

GPS  
BD  
GLN  
GAL  
SBAS

← FIXED H:0.006  
Age2 V:0.009

Point name: H:58.006  
N:3439887.756 E:359820.049  
Ant. H:1.8m+0.072m Base distance:0.0

Details Base SAT Map SAT

**E-survey**

**EASY TO SURVEY**

**CAD**

← FIXED H:0.005  
Age2 V:0.007

4  
Slope:?  
:66739.347

Fill:1468.728  
Dist to Bottom:?  
Offset:(Left)48.545

# Post Process Software-GEOSolution

The screenshot displays the GEOSolution software interface for a network adjustment project. The main window shows a network of points connected by green dashed lines. The points are labeled: Ahungalla base, Alpitiya, mnnana, 128B, 127B, 128C, 127A, 135A, 135C, 126C, and 126a. The interface includes a menu bar (Project(P), Import(I), Process(B), Adjustment(A), Export(R), Map(M), View(V), Application(A), Tool(T), Help(H)), a toolbar, and a Project Manager sidebar on the left. The sidebar contains sections for Data Import, Baseline Process (with icons for Static Settings, Dynamic Settings, Baseline Process, and Baseline reorganization), and Adjustment process. The status bar at the bottom shows the current coordinates: B: 006d 18m 46.99003464s L: 080d 04m 04.15648191s. A log window at the bottom displays the following messages:

- 2019-07-24 11:42:13 (48/51)72491660-60501660[128B-128C]Baseline processed...
- 2019-07-24 11:42:14 (48/51)72491660-60501660[128B-128C]Baseline processed finished!!
- 2019-07-24 11:42:14 (49/51)72491661-60501661[127B-127A]Baseline processed...
- 2019-07-24 11:42:15 (49/51)72491661-60501661[127B-127A]Baseline processed finished!!
- 2019-07-24 11:42:15 (50/51)72491662-60501662[135A-135C]Baseline processed...
- 2019-07-24 11:42:16 (50/51)72491662-60501662[135A-135C]Baseline processed finished!!
- 2019-07-24 11:42:16 (51/51)72491663-60501664[126C-126a]Baseline processed...
- 2019-07-24 11:42:17 (51/51)72491663-60501664[126C-126a]Baseline processed finished!!



***THANK YOU***

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