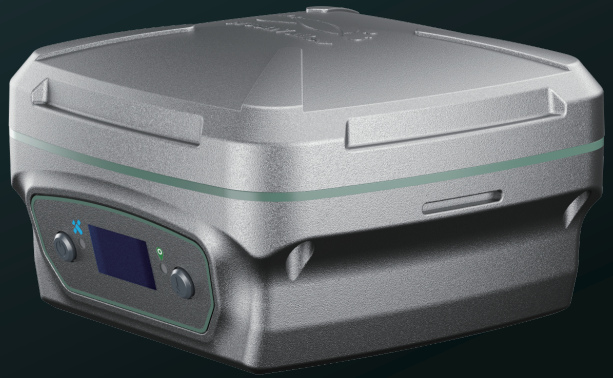
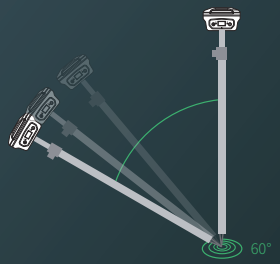


LiBase RTK

GNSS RECEIVER

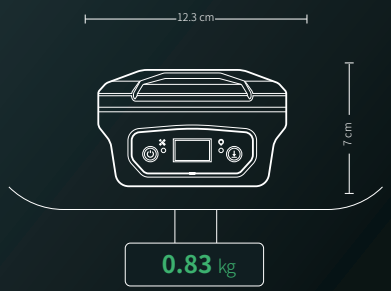
Intelligent inertial navigation ready to use

No leveling is needed at less than 60° inclination, points can be measured immediately, and the centimeter-level accuracy is maintained, and the measurement efficiency increases drastically.



Integrated Transceiver Powerful Functionality

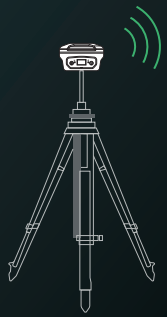
Complete RTK functionality is supported, including radio and network transmission and reception. Frequencies can be adjusted to meet the user's needs, ensuring compatibility with various mainstream protocols and RTK systems in the industry.



Extremely Fast RTK Initialization and GNSS Connection Speeds

Built-in K8 series modules, based on a 5-satellite 16-band service, full GNSS global support, achieving ultra-fast fixation; 40+ satellites are available at any location, greatly improving the fixation rate in blocked environments.

Lightweight and Compact Full Mobility



At just 0.83 kg with two batteries, this device is easily portable with one hand and can even fit into a pocket.

LiBase Technical Parameters

GNSS

BDS	B1I, B2I, B3I, B1C, B2a
GPS	L1, L2P, L2C, L5
GLONASS	G1C, G2C, G1P, G2P
GALILEO	E1, E5a, E5b
QZSS	L1, L2C, L5
SBAS	L1C/A
SBAS Support	WAAS, EGNOS, MSAS, GAGAN

Channels

No. of Channels	1590

Measurement Performance & Accuracy

Static Precision	Hz: ± (2.5+0.5×10(-6)×D) mm
	V: ± (5+0.5×10(-6)×D) mm
RTK Precision	Hz: ± (8+1 × 10 (-6)×D) mm
	V: ± (15+1 × 10 (-6)×D) mm
RTD Precision	Hz: ±0.5 m
	V: ±1.0 m
SBAS Differential Positioning Correction	<1.0 m 3D RMS
Signal Tracking Time	Cold start<30 s, Hot start<15 s
RTK Initialization time	<10 s
Signal Recapture	<1 s
RTK Initial Reliability	＞99.99%
RTK Tilt Compensated Accuracy	<2.5 cm，±60°

Data Processing

Data Storage	8 GB
Data Type	CNB, RINEX, and more.
Recording Rate	1Hz, 2Hz, 5Hz, 10Hz, 20Hz (Max)
RTK Data Protocols	CMR, CMR+, RTCM2.x, RTCM3.x
NMEA Output	NMEA-0183/Compass (custom binary), PJK
	plane coordinates

Communications

Built-in Network	4G
Network RTK	VRS, FKP, MAC, NTRIP Protocol Support
Built-in Transceiver	Broadband Radio
Transmission	0.5W, 1W, 2W
Communication Protocol	Farlink, Trimtalk450s, SOUTH,
	SOUTH+, SOUTHx, HUACE, Hi-target, Satel
Receive & Transmit UHF	410~470Mh, Channel spacing 12.5 kHz
Over-Air Baud Rate	9.6 kbps
Bluetooth®	4.0 (BLE & BR/EDR)
WIFI	Supports WEB configuration, supports WEB data download
	CDL7 radio, PDL radio (optional) and other high-power
Plug-in Radio	Digital Radios

Electrical Parameters

Accepted Power Supply	DC 6~28 V
Charging	Use QC2.0 and QC3.0 chargers to charge and power the device,
	and self-start configuration after power-on
Operating Time	Up to 12 h
Power Consumption	<2. 85 W (mobile network mobile station)
Communication Ports	1 RS232 serial port and 1 USB port (7-pin LEMO header),
	Bluetooth
Baud Rate	Expandable to 921，600bps

General

Dimensions	12.3×12.3×7.0 cm
Weight	834 g (with 2 batteries)
Controls	1 function key, 1 power key/confirm key
Status Indicators	1 differential light, 1 satellite light
Display Panel	0.93-inch OLED Blue light display
Casing Material	Aluminum magnesium alloy structure

Environmental

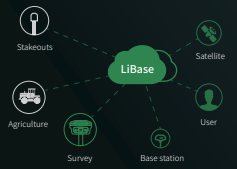
Proof Against Water, Sand, and Dust	IP67
Drop/Vibration	Withstands topple from a 2 m survey pole onto hard surfaces.
	Withstands strong vibration (ISO9022-36-08 | MIL-STD 810G
	514.6 Cat.24)
Temperature/Condensation	100% hermetically sealed, condensation proof
Operating temperature	30 °C ~ +65 °C
Storage Temperature	-40 °C ~ +85 °C

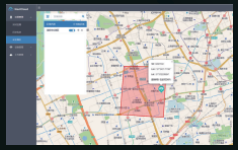
Surveying software: LiSurvey

- Based on Android system, one-click startup, adaptive to many file format Supports many measurement modes, intelligent and easy calibration
- Supports CAD/SHP base map file import, lofting can be checked and used immediately
- Roadway function support and road design table import



- Remote assistance and troubleshooting
- Real-time control of the work process
- Field data cloud synchronization
- Seamlessly connect with GreenValley's own surveying software LiSurvey
- Device management and real-time status monitoring
- Real-time working position and trajectory monitoring





System Handbook (LP-1)

IP67 protection grade, resistance against the elements

Built-in **7000mAh** battery, fast charge <4h to full charge

Equipped with an **8-core 2.0GHz** processor, Android **8.1** operating system

5-inch touch screen, 720*1280 resolution, clear visibility under sunlight

Supports Bluetooth, dual-band WIFI, 4G full Netcom

Universal **Type-C** interface

4GB+64GB storage, SD card support