



GreenValley International

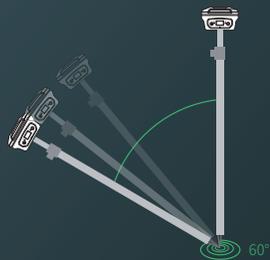


# LiBASE RTK

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.



## LIGHTWEIGHT AND COMPACT FULL MOBILITY

At only 0.83kg with two batteries; it can be easily held with one hand and can be put into a pocket.



## 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.

## INTEGRATED TRANSCEIVER POWERFUL FUNCTIONING



Full-feature RTK application, supporting radio, network transmission, and reception. Frequencies can be adjusted according to user's needs, achieving compatibility with various mainstream protocols/RTKs in the industry.

# 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	965
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## Measurement Performance & Accuracy

Static Precision	Hz: $\pm (2.5+0.5 \times 10^{-6} \times D)$ mm
	V: $\pm (3.5+0.5 \times 10^{-6} \times D)$ mm
RTK Precision	Hz: $\pm (8+1 \times 10^{-6} \times D)$ mm
	V: $\pm (15+1 \times 10^{-6} \times D)$ mm
RTD Precision	Hz: $\pm 0.5$ m
	V: $\pm 1.0$ m
SBAS differential positioning correction	<1.0 m 3D RMS
Signal Tracking Time	Cold start < 30s; Hot start <15s
RTK Initialization time	<10s
Signal Recapture	<1s
RTK Initial Reliability	>99.99%
RTK Tilt Compensated Accuracy	<2.5cm, $\pm 60^\circ$

## Data Processing

Data Storage	8GB
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 12.5KHz
Over-air baud rate	19.2kbaud, 9.6kbaud
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 6~28V
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 12h
Power consumption	<2.85W (mobile network mobile station)
Communication ports	1 RS232 serial port and 1 USB port (7-pin LEMO header), Bluetooth
Baud rate	Expandable to 921, 600baud

## General

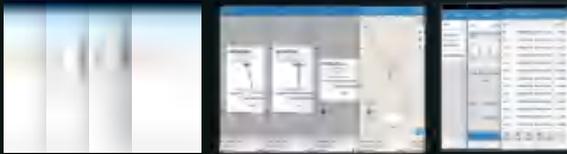
Size	12.3 × 12.3 × 7.0cm
Weight	834 g (with 2 batteries)
Controls	1 function key, 1 power key/confirm key
Status indicators	1 differential light, 1 satellite light
Display panel	0.93-inch OLED Blue light display
Casing material	Aluminum magnesium alloy structure

## Environmental

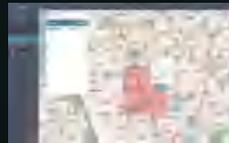
Proof against water, sand, and dust	IP67
Drop/Vibration	Withstands topple from a 2 m survey pole onto hard surfaces. Withstands strong vibration (ISO9022-36-08   MIL-STD 810G 514.6 Cat.24)
Temperature/Condensation	100% hermetically sealed, condensation proof
Operating temperature	-30 °C ~ +65 °C
Storage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

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

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

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



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

4GB+64GB storage, SD card support

Universal Type-C interface