

# Z1 Lite

## GNSS RECEIVER

Palm-Sized & Entry-Level RTK



### ACCURATE IN PALM SIZE

Ultra-compact design of only  $\Phi 107\text{ mm} \times 58.7\text{ mm}$ , Z1 Lite keeps its body as small as an apple without compromising on functionality, easily fit in your palm. Inside this ultra-small body, it features full-constellation tracking and anti-interference capability, delivering centimeter-level positioning even under challenging environment.

### FLEXIBLE WORK MODES

In order to cope with different using scenarios, Z1 Lite supports comprehensive working modes - 8GB storage for static measurement and web UI for easy download, Bluetooth connectivity that allows PDA CORS mode to access the local CORS network.

### VERSATILE FUNCTIONALITY

Aiming to provide users with first-class working experience, Z1 Lite combines all common functionalities in rugged IP67 housing. Equipped with WiFi/Bluetooth/USB for flexible transmission, built-in IMU for  $60^\circ$  tilt measurement, NFC for simple connection, web UI for easy download and upgrade, Z1 Lite can always meet your needs.

## SATELLITES TRACKING

Channels	1408
BDS	B1I, B2I, B3I, B1C, B2a, B2b
GPS	L1C/A, L1C, L2C, L2P(Y), L5
GLONASS	G1, G2, G3
Galileo	E1, E5a, E5b, E6
QZSS	L1C/A, L1C, L2C, L5
NavIC	L5
SBAS	WAAS, EGNOS, SDCM, BDSBAS, GAGAN
L-Band	Support
Cold start	<30s
RTK Initialization Time	<5s(typical)
RTK initialization reliability	>99.9%
Re-acquisition	<1s

## ACCURACY

Standalone	1.5m Horizontally 2.5m Vertically
DGPS	0.4m Horizontally 0.8m Vertically
Static Post-processing	2.5mm+0.5ppm Horizontally 5mm+0.5ppm Vertically
RTK	8mm+1ppm Horizontally 15mm+1ppm Vertically
PPP	5cm Horizontally 10cm Vertically
SBAS	< 1.0 m 3D RMS
Time Accuracy	20ns
Tilt Surveying	< ±2.5cm, within 60° Tilt Range

## DATA FORMAT

Data Output Format	- NMEA-0183 - RINEX 3.02/3.04 - Binary Format *.xyz
Data Update Rate	1~50Hz selectable
Correction Data Format	- RTCM v3.3/3.2/3.1/3.0
Supported Protocols	Ntrip client, Ntrip Server, Ntrip Caster, TCP, UDP

## COMMUNICATION

Bluetooth	BT4.0 Dual Mode
NFC	Support NFC Connection
WiFi	802.11 a/b/g/n/ac
Interface	- 1 Type-C Interface for Data Transmission and Charging

## USER INTERACTION

Front Panel	- 3 LED indicators indicating satellite tracking, differential data transmission and power - 1 button for power on/off
WebUI	- Accessible via Wi-Fi - Support configuration, status checking, data transfer, data storage and system upgrade

## ELECTRICAL

Power Consumption	1.5 W <sup>1</sup>
Input Voltage	DC 5-15V
Battery	- 4200 mAh, over 15 Hours Working Time - Fast Charge of 3 Hours Charging Time

## PHYSICAL

Size	Φ107 mm × 58.7 mm
Weight	547 g
Storage	8 GB <sup>2</sup>
Housing Material	Magnesium-aluminum Alloy

## ENVIRONMENTAL

Working Temperature	-40 °C to + 65 °C
Storage Temperature	-55 °C to + 85 °C
Humidity	100% Non-condensing
Waterproof & Dustproof	IP67
Drop	Designed to Survive a 2m Drop onto Concrete

1. The power consumption varies with the different work modes.
2. Storage can be expanded according to user demands.

All specifications are subject to change without notice.

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