# **SV100 GNSS RECEIVER**

For Your Reference Stations/Portable Base



# ONE DEVICE, **DUAL-PURPÓSE**

With a stable choke ring antenna installed outdoors, the SV100 can serve as a reference station, providing stable GNSS raw data for CORS network or deformation monitoring. In addition, with the detachable hook, SV100 can also be easily attached to the tripod as a portable base or RTK bridge. broadcasting correction data via 4G/UHF for your construction site or precision agriculture.

# **POWERFUL GNSS ENGINE**

To ensure superior GNSS performance in all application scenarios, the SV100 is equipped with a high-precision GNSS engine for simultaneously tracking GPS, BDS, GLONASS, Galileo, QZSS & IRNSS. Embedded with multi-frequency anti-jamming technology, the SV100 offers high quality GNSS data even in complex environment.

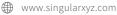
# **FLEXIBLE** CONFIGURATION

For professional users of reference stations, the web UI accessed via Ethernet/WiFi contains comprehensive status display, working modes and data transmission settings. For field users of portable base stations, SingularXYZ also provides an android app connected via Bluetooth, offering a clean interface for necessary functions.











#### **SATELLITES TRACKING**

1408
B1I, B2I, B3I, B1C, B2a, B2b
L1C/A, L1C, L2C, L2P(Y), L5
G1, G2, G3
E1, E5a, E5b, E6
L1C/A, L1C, L2C, L5
L5
WAAS, EGNOS, SDCM, BDSBAS, GAGAN
Support
<30s
<5s(typical)
>99.9%
<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

#### ONANALINII CATIONI

COMMUNICATION		
4G modem	FDD-LTE B1/B3/B5/B7/B8 TDD-LTE B38/B39/B40/B41 TDSCDMA B34/B39 WCDMA B1/B2/B5/B8 GSM B2/B3/B5/B8 CDMA1x/CDMA2000 BC0/BC1	
UHF modem <sup>1</sup>	<ul> <li>Working range: Up to 15km with optimal conditions</li> <li>Frequency range: 410-470MHz</li> <li>Protocol (TX &amp; RX): LoRa</li> <li>Protocol(RX): TRIMATLK, TRANSEOT, SATEL, TRIMMARK3, etc.</li> <li>Channel spacing: 25KHz</li> <li>Transmit power: 0.5W~2W selectable</li> </ul>	
Bluetooth	BT4.0 dual mode	
WiFi	802.11 a/b/g/n/ac	
FTP	Support FTP download	
NAT-DDNS	Support	
Interface	<ul> <li>1 10-pin connector, including 1 RS232,</li> <li>1 PPS output, 1 USB and power supply</li> <li>1 RJ45 for Ethernet</li> <li>1 TNC connector for GNSS antenna</li> <li>1 TNC connector for UHF antenna</li> <li>1 SMA connector for 4G antenna</li> <li>1 SIM card slot</li> </ul>	

#### **DATA FORMAT**

Data output format	- NMEA-0183 - Binary format *.xyz
Data update rate	$1\!\sim\!50$ Hz selectable
Correction data format	RTCM v3.3/3.2/3.1/3.0
Network protocol	TCP, MQTT <sup>2</sup> , Ntrip Server, Ntrip Caster

## **USER INTERACTION**

LED indicators	4 LEDs indicating battery, satellite tracking, RTK status and network
WebUI	<ul> <li>Accessible via Wi-Fi, Ethernet</li> <li>Support configuration, status checking, data transfer, data storage and system upgrade</li> </ul>
Power switch	Power switch on 10-pin cable

#### **ELECTRICAL**

Power consumption	3.5W
Input voltage	<ul><li>Without battery: 9 - 28V DC</li><li>With internal battery: 9 - 22V</li></ul>
Battery (optional)	6600 mAh, support up to 13 hours working time.
MTBF	> 20000 hours

#### **PHYSICAL**

Size	162×142×65 mm, including connectors
Weight	1.05 kg without battery
Housing material	Aluminum alloy

#### **DATA RECORDING**

Storage	8 GB <sup>3</sup> , support loop recording
Storage format	RINEX 3.02/3.04, Binary format *.xyz

## **ENVIRONMENTAL**

Working temperature	-40 °C to + 75 °C
Storage temperature	-55 °C to + 85 °C
Humidity	95% non-condensing
Waterproof & dustproof	IP67
Drop	Designed to survive a 1m drop onto concrete
Vibration	MIL-STD-810

- 1. The enhanced UHF base is not compatible with normal UHF rovers on the market. For different user needs, SingularXYZ also provides normal UHF as an option compatible with UHF of other brands. Please clarify your requirements when placing the order.
- 2. The MQTT protocol is customizable.
- 3. Storage can be expanded to 32GB according to user demands.

All specifications are subject to change without notice.

©2025 SingularXYZ Intelligent Technology Ltd. All rights reserved. SingularXYZ  $^{\circledcirc}$ is the official trademark of SingularXYZ Intelligent Technology Ltd., registered in People's Republic of China, EU. All other trademarks are the property of their respective owners.







+86-21-60835497