SingularXYZ®

X1 PRO

GNSS RECEIVER

HD Color Screen, Meets All Your Needs



STRONG GNSS PERFORMANCE

To ensure superior GNSS performance in every corner of the world, the X1 Pro is equipped with a high-precision GNSS engine for simultaneously tracking GPS, BDS, GLONASS, Galileo, QZSS, IRNSS & SBAS. Adopted with anti-interference technology, the X1 Pro offers reliable positioning in any complex environments.

SMALLER SIZE & LARGER SCREEN

For the convenience of users, the X1 Pro GNSS receiver is designed with an ultra-small size of Φ133.5 × 67 mm to light your burden, 1.1” OLED color screen for clear status checking and easy configura-tion, voice broadcast for real-time status prompt and IP68 protection for harsh work surroundings.

FULL-FEATURED DESIGN

To make it easier for user selection, the X1 Pro is equipped with all common functions for GNSS receiver. Convenient from 60° IMU tilt surveying, up to 15km enhanced internal UHF, fluent communication through 4G/UHF/Bluetooth/NFC, large internal memory and 6700mAh battery, satisfying any of your demands.

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X1 PRO GNSS RECEIVER

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

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[1]	- Working range: Up to 15km with optimal conditions - Frequency range: 410-470MHz - Protocol (TX & RX): LoRa - Protocol(RX): TRIMATLK, TRANSEOT, SATEL, TRIMMARK3, etc. - Channel spacing: 25KHz - Transmit power: 0.5W~2W selectable
Bluetooth	BT4.0 dual mode
NFC	Support NFC connection
WiFi	802.11 a/b/g/n/ac
Interface	- 1 7-pin lemo port for RS232 transmission and power supply - 1 SIM card slot for 4G - 1 TNC connector for UHF antenna - 1 Type-C USB port for static data

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 - CMR
Supported protocols	Ntrip client, Ntrip Server, Ntrip Caster, TCP

USER INTERACTION

Indicators	4 LEDs indicating battery/charging, satellite tracking, correction data transmission, and 4G status/static recording
Display	1.1" OLED display
Button	2 buttons for power and function
WebUI	- Accessible via Wi-Fi - Support configuration, status checking, data transfer, data storage and system upgrade

ELECTRICAL

Power consumption	2.0 W[2]
Input voltage	DC 9~28V
Battery	- 6700 mAh, over 20 hours working time - Fast charge of 3 hours charging time

PHYSICAL

Size	Φ133.5 mm × 67 mm
Weight	870 g
Storage	8 GB[3]
Housing material	Magnesium-aluminum alloy
Speaker (optional)	For voice broadcast of real-time status

ENVIRONMENTAL

Working temperature	-40 ℃ to + 65 ℃
Storage temperature	-55 ℃ to + 85 ℃
Humidity	100% non-condensing
Waterproof & dustproof	IP68
Drop	Designed to survive a 2m drop onto concrete

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 power consumption of X1 Pro varies with the different work modes.
3. Storage can be expanded to 32GB according to user demands.

All specifications are subject to change without notice.

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