

X1-SERIES BASE
(X1 PRO & X1)



SATELLITES TRACKING

Channels	1408
BDS	B1I, B2I, B3I, B1C, B2a, B2b ¹
GPS	L1 C/A, L1C, L2P, L2C, L5
GLONASS	G1, G2, G3
Galileo	E1, E5a, E5b
QZSS	L1, L2, L5
IRNSS	L5
SBAS	WAAS, EGNOS, SDCM, BDSBAS, GAGAN
L-Band	Upgradeable
Cold start	<30s
RTK Initialization Time	<5s(typical)
RTK initialization reliability	>99.9%
Re-acquisition	<1s

ACCURACY

DGPS	0.4m Horizontally 0.8m Vertically
RTK	8mm+1ppm Horizontally 15mm+1ppm Vertically
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	Support
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 download & firmware upgrade

ELECTRICAL

Power consumption	2.0 W ²
Input voltage	DC 9~28V
Battery	- 6700 mAh, over 20 hours working time - Fast charge of 2.5 hours charging time

PHYSICAL

Size	Φ133.5 mm × 67 mm
Weight	870 g

ENVIRONMENTAL

Waterproof & dustproof	IP67
Drop	Designed to survive a 2m drop onto concrete

SFAIRA ONE
SERIES ROVER



SATELLITES TRACKING

Channels	1408
BDS	B1I, B2I, B3I, B1C, B2a, B2b ²
GPS	L1 C/A, L1C ² , L2P, L2C, L5
GLONASS	L1, L2, L3 ²
Galileo	E1, E5a, E5b, E6 ²
QZSS	L1, L2, L5
Cold start	<30s
Warm start	<20s
RTK initialization time	<5s (typical)
RTK initialization reliability	>99.9%
Re-acquisition	<1s

ACCURACY

DGPS	0.4m Horizontally 0.8m Vertically
RTK	8mm+1ppm Horizontally 15mm+1ppm Vertically

TILT FUNCTION – For Sfaira ONE Plus Model

Tilt range	60° tilt range
Tilt survey accuracy	±2.5cm within 60° tilt range
IMU Initialization time	5s

COMMUNICATION

Bluetooth	BT4.0
Interface	Type-C, for charging and firmware upgrade

ELECTRICAL

Power consumption	1.0 W
Input voltage	5V DC ≤ 2A
Battery	4800 mAh - 2 hours fast charge - 16 hours working time, with continu- ous Bluetooth transmission, satellite tracking and RTK surveying

PHYSICAL

Size	Φ50 mm ×149 mm
Weight	409g

ENVIRONMENTAL

Waterproof & dustproof	IP65
Drop	Designed to survive a 1.5m drop onto concrete

1. The BDS B2b signal of X1-Series, BDS B2b, GPS L1C, GLONASS L3 and Galileo E6 signals of Sfaira ONE Series are reserved for future upgrade.
2. The power consumption of X1-Series varies with the different work modes.

All specifications are subject to change without notice.

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SFAIRA ONE & X1-SERIES

LAND SURVEYING SOLUTION

Tackling CORS Network Coverage Gaps



As our Sfaira ONE Series gains popularity worldwide, some users have encountered difficulties due to the lack of CORS network coverage in their regions. SingularXYZ has tailored a centimeter-level surveying solution for them, utilizing the X1 Series as a base station to provide differential data to the Sfaira ONE via SingularXYZ caster over 4G, enabling RTK fixed solutions and centimeter-level accuracy.



EASY SETUP IN 3 STEPS

SINGULARXYZ CASTER

WORKING RANGE: No restriction via 4G connection

1. Insert SIM card into X1 base station
2. Setup X1 in internal GSM base mode and upload correction data to SingularXYZ caster
3. Setup Sfaira ONE in PDA CORS mode and obtain correction data from SingularXYZ caster

APPLICATIONS



Land Surveying



Construction



Precision Agriculture

RELATED PRODUCTS



SURVEYING SOFTWARE
SINGULARPAD
FIELD SURVEYING SOFTWARE

- Available Datums of most countries and regions
- Various survey methods – topo survey, road stake, surface stake, CAD stake and etc.
- Support tilt initialization and measurement
- Abundant formats supported – TXT, DXF, CSV,HTML, KML, SHP and etc.

- Point Survey
- Point Stakeout
- CAD Mapping
- DSM Stakeout
- Stake Road
- Volume Calculation
- Perimeter and Area
- Localization
- Survey Range Settings

DATA COLLECTOR

SC200
DATA COLLECTOR

- Powered by Android 11 OS
- IP67 protection & 1.5m anti-drop
- 4G/WiFi/Bluetooth communication
- 5.5" sunlight-readable touch screen
- 7700mAh battery for 12h operating
- 4GB RAM + 64GB ROM + Extend TF

