

SFAIRA ONE

GNSS RECEIVER

An Entry-Level Network RTK Rover With Professional Performance



POCKET SIZE & 16HRS BATTERY

With $\Phi 50\text{mm} \times 149\text{ mm}$ ultra-portable size and lightweight, users can easily put the Sfaira ONE in your cloth pocket, briefcase or backpack side pocket, carrying it with you anywhere. 16hrs of battery life keeps you from power outages, which can also be charged via the Type-C port using a power bank.

CENTIMETER ACCURACY

Designing for smaller size doesn't mean sacrificing GNSS performance. The Sfaira One GNSS receiver is equipped with a high-precision GNSS engine, which can simultaneously track GPS, BDS, GLONASS, Galileo & QZSS, providing stable and accurate centimeter-level positioning in various environments.

CONNECT, LOGIN, SURVEY

Connected via Bluetooth, you can login to your CORS account through smartphone. Then you can directly start point survey, point stakeout, CAD stakeout and other tasks through SingularPad/SingularSurv field software. The IP65 protection of Sfaira One allows flexible operation in all weather conditions.

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

DATA FORMAT

Positioning data format	NMEA-0183
Correction data format	- RTCM v3.3/3.2/3.1/3.0
Data protocol	Ntrip
Data update rate	1 Hz
Baud rate	115200 bps

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 - 16 hours working time, with continuous Bluetooth transmission, satellite tracking and RTK surveying

PHYSICAL

Size	Φ50 mm ×149 mm
Weight	409g
Button	1 power button
Indicator	2 LEDs, indicating satellite tracking and battery status

ENVIRONMENTAL

Working temperature	-45 °C to + 75 °C
Storage temperature	-55 °C to + 85 °C
Waterproof & dustproof	IP65
Drop	Designed to survive a 1.5m drop onto concrete

All specifications are subject to change without notice.

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