



JANAK

-our clients are our pride



SPACEXX GNSS Receiver



- Advanced IMU Tilt Sensor supporting up to 120° tilt
- 1408 Channels driven by the powerful Nebulas-IV engine
- AR-based Visual Stakeout for unmatched accuracy and efficiency
- Over 15 hours of continuous operation for uninterrupted performance
- Integrated Laser Distance Meter and Dual Cameras for superior tracking capabilities

Spacexx GNSS Receiver Specifications

Performance specification

- Satellite signals tracked simultaneously

GPS: L1C/A, L1C, L2P(Y), L2C, L5
GLONASS: L1, L2, L3
BEIDOU: B1I, B2I, B3I, B1C, B2a, B2b
GALILEO: E1, E5a, E5b, E6
QZSS: L1, L2, L5, L6
SBAS: L1, L5
IRNSS: L5

- Channels
- Cold start
- Hot start
- Positioning output rate
- Signal Reacquisition
- RTK Initialization time
- Initialization Reliability
- Time accuracy

1408 tracking Channels
<60 s
<15 s
1Hz - 20Hz
<1s
<10s
>99.99%
20 ns

Positioning

- Code differential GNSS positioning:

Horizontal: 0.25m + 1 ppm
Vertical: 0.5m + 1 ppm
SBAS differential positioning accuracy2: typically <5m 3DRMS
Horizontal: 2.5mm + 0.5 ppm RMS
Vertical: 3.5mm + 0.5 ppm RMS

- Static GNSS surveying

Real Time Kinematic Surveying

- Single Baseline < 30 KM

Horizontal: 8mm + 1 ppm RMS
Vertical: 15 mm + 1 ppm RMS

- Network RTK³

Horizontal: 8mm + 0.5 ppm RMS
Vertical: 15mm + 0.5 ppm RMS

- Laser survey

±1cm+0.5mm/m (Tilt height less than 30°)

HARDWARE PHYSICAL

- Material
- Dimensions
- Weight
- Operating temperature
- Storage temperature
- Protection IP
- Shock
- Vibration
- Humidity

Magnesium alloy
120mm*72mm (without bottom connector 20mm)
0.76kg
-40°C to +75°C
-55°C to +85°C
IP68 dust proof, protected from 30min immersion to depth of 1m
Survive a 2m pole drop onto concrete
MIL-STD-810G
100%, condensing

ELECTRYCAL

- Power: 9~24 V DC external power input on 5 pin LEMO port
- Support USB Type-C fast charging
- Internal 7000mAh-7.4V lithium-ion battery

- Battery Life

Rover Mode: 12 hours
Base Mode: 7 hours
Static Mode: 15 hours

Communication & Data Storage I/O interface

- LEMO port (5pin)
 - USB Type-C port
 - Sim card slot
 - Antenna port
- Supports power input, serial port control, and external radio communication
Data download / Charging
Supports Nano-SIM
UHF antenna interface

Radio Modem

- Integrated full frequency multi band 4G modem, supports WCDMA/CDMA2000/TDD-LTE/FDD-LTE

WIFI

- 802.11 b/g standard, access point & client mode, supports access to hotspot for correction transmission

Bluetooth

- Bluetooth 5.2 Classical/BLE Proprietary double-mode

Data format

- RTCM2x, RTCM3x, CMR & CMR+, SCMRx 0°) RINEX, NMEA outputs

Storage

- 64GB internal memory, supports cyclic storage; with ability to collect over one year raw observation based on 5 seconds interval

Camera

- AR
 - Laser assisted
 - 3D Camera
- 5M high-definition camera with large viewing angle and support for live scene lofting
Integrated laser with a 50-meter range
Fully 3D scanner with 5 MP Camera FOV 84°

Other

System integration

- OS system
 - Tilt Compensation
 - Supported controllers to 1
- Intelligent LINUX operating system
IMU up to 120°(Calibration free)
All android devices with supported software Design

Design

- Button
 - Indicator
 - Voice
 - WEBUI
- Power key
Power indicator, data link indicator, satellite indicator, Bluetooth indicator
All android devices with supported software Design
Intelligent voice prompts
Support WEBUI configuration

1- Precision and reliability may be subject to anomalies due to multipath, obstructions, satellite geometry, and atmospheric conditions. The specifications stated recommend the use of stable mounts in an open sky view, EMI and multipath clean environment, optimal GNSS constellation configurations. Base lines longer than 30 km require precise ephemeris and occupations up to 24 hours may be required to achieve the high precision static specification.

2- Depends on SBAS system performance

3- Network RTK PPM values are referenced to the closest physical base station and depends on network performances.

Illustrations, descriptions and technical specifications are not binding and may change



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