

4GNSS OS-112

MULTI FREQUENCY
GNSS RECEIVER



by Orient Systems Group

TECHNOLOGIES

WEB-SURVEY

Use the browser for full control, management, and survey by the receiver through the WebUI

STEADY STREAM

Only the most stable stream of correction, using both UHF and GSM connection

RTK&GO

Be confident in your field data by combining RTK and Stop&Go modes

STRONG EVENT

Forget about false events when working with external recording devices (for example, a camera during aerial photography).

OS-112 is a universal GNSS geodetic accuracy receiver with an external antenna. It can be used as a Base or Rover in **RTK** mode.

The receiver is easily controlled by the **Web Survey** interface or any field software which is able to receive **NMEA** messages.

Thanks to **RTK&GO** technology you can combine RTK points in Stop&Go Raw data to make your job anyway.

Steady Stream technology will allow you to receive only the most stable correction stream from Base station automatically switching between GSM and UHF.

It can optionally be equipped with **built-in battery** capacity of 3000 mAh.

TECHNICAL SPECIFICATIONS OS-112

Signal Tracking

- 574 channels
- GPS: L1 C/A, L2C, L2P, L5
- BeiDou: B1, B2, B3
- GLONASS: L1 C/A, L1P, L2 C/A, L2P
- Galileo: E1, E5a, E5b
- SBAS: WASS, EGNOS, MSAS, GAGAN

Performance

- Cold start: <50 s
- Warm start: <45 s
- Hot start: <15 s
- RTK Initialization time: <10 s
- Signal reacquisition: <2 s
- Initialization reliability: >99.9%
- Velocity accuracy: 0.03 m/s
- Acceleration: 4 g
- Overload: 15 g
- Time accuracy: 20 ns

Positioning

RTK

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

DGPS

< 0.4 m 3D RMS

Standalone

< 1.5 m 3D RMS

SBAS

< 1 m 3D RMS

PostProcessing

Horizontal: 2.5 mm + 1 ppm
Vertical: 5 mm + 1 ppm

Data Format

- Correction data I/O: RTCM 2.X, 3.X, CMR (GPS only), CMR+ (GPS only)
- Position data output:
 - NMEA-0183
 - ComNav protocols
 - Data output rate: 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz*

Communications

- 2 RS232 Lemo4 (f) baud rates up to 230400 bps
- 1 Pulse Per Second (PPS) output BNC (f)
- GNSS antenna Lemo1 (f)
- 1 Event Marker input
- Built-in UHF modem *
 - 410-470 MHz
 - 2W
 - TRIMTALK, TRANSEOT, TRIMMK3
 - UHF antenna TNC (f)
- Build-in 3G GSM modem*
 - 2G/3G: 900/2100 MHz
- Bluetooth
- Wi-Fi 802.11 (APN, client)

Physical

- Size (L × W × H): 164 mm × 87,4 mm × 53,6 mm
- Weight: 660 g (without battery)

Environmental

- Working temperature: -40°C to +70°C
- Storage temperature: -40°C to +85°C
- Humidity: up to 100% (condensation)
- Waterproof and dustproof: IP67, protected from temporary immersion to depth of 1 m
- Shock: designed to survive a 2 m drop onto concrete

Electrical

- Input voltage: +9.0 V ~ +28.0 VDC
- Power consumption: up to 3 W
- Built-in battery*: 3000 mAh (12-17 V, 20 W)
- Memory 8 GB (32 GB*)

* - optional

