

## GNSS RECEIVER

# OS-111



**Single-frequency GNSS receiver with built-in battery \***



### WEB-SURVEY

Work with any OS (iOS, Android, etc.)

### STEADY STREAM

2SIM GSM/UHF modem

### RTK&GO

RTK and Stop&Go at the same time

### STRONG EVENT

No false events

**OS-111** is a universal multifunctional L1 GNSS receiver with an external antenna connection. It can be used as a Base or Rover in the RTK, Stop&Go, Static modes and for high-precision trajectory and events obtaining.

OS-111 is an excellent solution for geophysical, geodetic, photogrammetry and other applications that require a high-precision solution.

### SIGNAL TRACKING

- 200 channels:
  - GPS: L1
  - BeiDou: B1
  - GLONASS: L1
  - SBAS: WAAS, 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

### 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\*

### POSITIONING

#### RTK(<8 km):

Horizontal: 10 mm + 1 ppm  
Vertical: 20 mm + 1 ppm

**DGPS:** < 0.4 m 3D RMS

**Standalone:** < 1.5 m 3D RMS

**SBAS:** < 1 m 3D RMS

#### Post Processing:

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

### COMMUNICATIONS

- 2 RS232 Lemo4 (f) baud rates up to 460800bps
- 1 Pulse Per Second (PPS) output
- 1 Event Marker input
- Bluetooth
- Wi-Fi 802.11 (APN, client)
- Built-in UHF modem\*
  - 410-470 MHz
  - Up to 2W
  - TRIMTALK, TRANSEOT, TRIMMK3
- Built-in GSM modem
  - 2G/3G: 900/2100 MHz

- TCP-IP/UDP-IP (client, server)
- NTRIP (client, server)
- OS-Stream
- GNSS antenna Lemo1 (f)
- 6 LED indicators show the working status

### PHYSICAL

- Size (L × W × H): 164 mm × 87,4 mm × 53,6 mm
- Weight: 660 g

### 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\*)