

MiniPod 201/203G



Key features

- Robust GNSS receiver with integrated antenna
- Multi-band L1 + L2 + L5 receiver
- RTK Moving Base and Rover Operation
- Multi-constellation of positioning satellites
- External Sensor Integration
- Submersible, 50m rated
- Wide area corrections or external RTCM
- Assembly shock rated to 75G for field endurance in harsh conditions
- Worldwide RF remote wireless data options

Applications

- Seismic streamer head and tail positioning
- Seismic source positioning
- Offshore construction
- Ideal for subsea excavation vehicles (jetting & trenching), and surface positioning of towed sensors such as magnetometers, operating in shallow waters

Overview

The BCN-201G MiniPod is a lightweight ruggedised GNSS receiver that is designed to survive 50m immersion and transmit data back to a vessel, shoreline or platform. The shock mounted robust multi band GNSS receiver has both wired and wireless applications, including providing streamer positioning and source positioning for 3D UHR seismic operations.

The standard functionality of the 201G family provides moving base/rover mode to support high accuracy positioning, plus relative heading and attitude measurements. And, optionally, utilising a second antenna, high performance position and heading. The interconnect flexibility of the MiniPod allows for RS232, RS485, 1PPS and wireless options to be configured by the user. It is externally powered by default with an external battery option.

Technical Specification

MODEL VARIANTS

Housing material	White Acetyl
Dimensions	Ø115mm x 170mm
Weight	1.95kg

Model Part Number	Dual Antenna GNSS	INS/AHRS (A Suffix)	EXT PPS (+ Suffix)	RF Standard Range*	External RF Antenna **(EXT Suffix)	Depth Rating
BCN-201G	Single antenna	N/A		800m DIR	IP67 or 50m submersion external RF antenna option.	50m
BCN-203GA	Single antenna	N/A		800m DIR	N/A	1000m
BCN-202A	Dual antenna (a. Secondary antenna sold separately)	Optional	Optional 16-Way Bulkhead	300m OMNI	N/A	50m
BCN-204G	Dual antenna (a. Secondary antenna sold separately)	Optional		300m OMNI	N/A	1000m

* Dual antenna GNSS come configured standard with an omni directional antenna. A directional antenna is available instead.

** External antenna options will have no internal antenna fitted inside.

Specifications of GNSS

GNSS SIGNALS

544 hardware channels for simultaneous tracking of most visible signals:

- GPS: L1 C/A, L2C, L2 P(Y), L5
- GLONASS: L1 C/A, L2C/A, L3, L2P
- BeiDou: B1I, B1C, B2a, B2I, B3I
- Galileo: E1, E5a, E5b
- QZSS: L1 C/A, L2C, L5
- NAVIC: L5
- SBAS: EGNOS, WAAS, GAGAN, MSAS, SDCM

POSITION ACCURACY {2,3}

	Vertical	Horizontal
Standalone	1.2m	1.9m
SBAS	0.6m	0.8m
DGNSS	0.4m	0.7m

POSITION ACCURACY {2,3}

Horizontal accuracy	0.6cm + 0.5ppm
Vertical accuracy	1cm + ppm
Initialisation	7s

Septentrio's patented GNSS+ technologies

- AIM+ unique anti-jamming and monitoring system against narrow and wideband interference with spectrum analyser
- IONO+ advanced scintillation mitigation
- APME+ a posteriori multipath estimator for code and phase multipath mitigation
- LOCK+ superior tracking robustness under heavy mechanical shocks or vibrations
- RAIM+ (Receiver Autonomous Integrity Monitoring)
- Optional feature
- Open sky conditions
- RMS level
- Baseline <40km
- 5. 99.9%
- Including software compensation of sawtooth effect
- No information available (no almanac, no approximate position)
- Ephemeris and approximate position known