

# 201/203G MiniPod



## Key features

- Marinestar L-Band correction service
- Robust GNSS receiver with integrated antenna
- Multi band L1 + L2 +L5 receiver
- RTK Moving Base and Rover Operation
- Multi constellation GNSS receiver
- External Sensor Integration
- Submersible, 50m/ 1000m 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
- USV/ AUV surface positioning

## 201G MiniPod Overview

The 201G MiniPod is a lightweight, ruggedised Tri-band GNSS receiver with configuration options. These allow for a RTK base, RTK rover and RTK moving base solutions to be used with more than one MiniPod in operation. Additional external sensor information can be added to the wireless protocol.

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# Technical Specification

## MODEL VARIANTS

	201G	203G
Housing material	White Acetyl	White Acetyl
Dimensions	Ø115mm x 170mm	Ø125mm x 218mm
Weight	1.95kg	2.5kg
Vibration properties	75G shock rated	75G shock rated
	BS EN 60068-2-27: 2009: Shock BS EN 60068-2-6: 2008: Sinusoidal Vibration	BS EN 60068-2-27: 2009: Shock BS EN 60068-2-6: 2008: Sinusoidal Vibration

## ELECTRICAL SPECIFICATION

Electrical properties	Supply 12VDC-36VDC
Power	2.4W

Model Part Number	GNSS Receiver	Connectivity	External RF Antenna*	RF Standard Range
BCN-201G	Single Antenna	MC-BH-8-M 1x configurable RS485-4W / RS485-2W / RS232   2 x RS232** (Shared Ground with PWR)	Optional (IP67 only antenna)	800m directional
BCN-203G		MC-BH-8-M 1x configurable RS485-4W / RS485-2W / RS232   2 x RS232** (Shared Ground with PWR)		
BCN-201G+		MC-BH-16-M 1x configurable RS485-4W / RS485-2W / RS232   3 x RS232** (Individual Grounds)   1 x 5V PPS (configurable output rate)		
BCN-203G+		MC-BH-16-M 1x configurable RS485-4W / RS485-2W / RS232   3 x RS232** (Individual Grounds)   1 x 5V PPS (configurable output rate)		

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

\*\* 1x RS232 omitted when configured for RS485

## Specification

### 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, L1 C/B
- Integrated L-Band Receiver
- SBAS: EGNOS, WAAS, GAGAN, MSAS, SDCM

## WARM UP TIME (TYPICAL)

From cold	<45s (No almanac or real time clock)
Warm start	<20s (Almanac & RTC, no position)
Re-acquisition	Avg 0.1s

## POSITION ACCURACY (DEPENDENT ON CORRECTIONS)

Accuracies dependent on multipath environment, number of satellites in view, geometry and ionospheric conditions.

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

## RTK PERFORMANCE

Horizontal accuracy	0.6cm + 0.5ppm
Vertical accuracy	1cm + 1ppm
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)