



## 101G MiniPod, Submersible GNSS



The **Modulus Technology 101G MiniPod** is a lightweight, ruggedised GNSS receiver, designed to survive 50m immersion, that transmits data back to a vessel or the shoreline.

The shock mounted robust dual L1 + L2 band GNSS receiver has both wired and wireless applications, including providing streamer head and tail positioning and source positioning for 3D UHR seismic operations.

The interconnect flexibility of the 101G 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. The 101G MiniPod can be fitted with an internal compass to provide accurate heading, pitch and roll of equipment.

### Key Features

- Robust GNSS receiver with integrated antenna
- Dual band L1 + L2 receiver
- Multi constellation GNSS receiver.
- Submersible, 50m rated
- Wide area corrections or external RTCM
- Internal and external shock mounts
- Worldwide RF remote wireless data options
- Atlas correction option
- External battery option
- Internal AHRS option

### Applications

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

## Technical Specification

### MODEL VARIANTS

**Housing material:** White Acetyl. **Bracket:** A4 Stainless steel.

**Dimensions:** 170mm x Ø115mm

**Depth rating:** 50m

**Weight:** 1.95kg

Model Part Number	GNSS Receiver	AHRS	External RF Antenna	RF Range
BCN-101G	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	800m
BCN-101GA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	800m
BCN-101A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	800m
BCN-101G-EXT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2000m
BCN-101GA-EXT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2000m

# 101G MiniPod, Technical Specification

## SPECIFICATION

### Configuration

Receiver type:	GNSS Multi-frequency L1 & L2, RTK with carrier phase
GNSS compatibility:	GPS, GLONASS, BeiDou, QZSS & GALILEO
Channels:	372
SBAS tracking:	3 channel parallel tracking
Differential options:	SBAS, Autonomous, External RTCM (V3.2) or CMR, RTK, L-Band (Atlas) DGPS

### Accuracy (Dependent on corrections):

<b>RMS 67%:</b>	<b>Horizontal</b>	<b>Vertical</b>	
RTK:	8mm + 1 ppm	15mm + 2ppm	
SBAS (WAAS):	0.3m	0.6m	
Unaided:	1.2m	2.4m	
Atlas H10:	0.04m		<i>Accuracies dependent on multipath environment, number of satellites in view, geometry and ionospheric conditions.</i>
Atlas H30:	0.15m		
Atlas H100:	0.50m		

### Warm up time (Typical):

From cold:	<60s	(No almanac or real time clock)
Warm start:	<30s	(Almanac & RTC, no position)
Hot start	<10s	

### Connectivity

Connector:	8 pin MCBH connector (male)
Power:	18-36VDC 24v 160mA nominal
Communication:	RS232 (2 bi-directional ports) RS485 (2 wire bi-directional) RS485 (4-wire)
Position protocol:	NMEA 0183 protocols supported, (GPGGA, GPRMC & GPGLL standard)
Refresh rate:	10Hz standard, 20Hz optional
Correction I/O protocol:	Hemisphere GNSS proprietary, ROX Format, RTCM v2.3 (wired only), RTCM v3.2, CMR, CMR+
1pps	3.3V, 1ms pulse width, 20mA optional

## ACCESSORIES/OPTIONS

- Wireless modem data receiver (for up to 4 x 101G MiniPods): Part number RFR-101G
- Integrated AHRS for MiniPod BCN-101GA, BCN-101A or BCN-101GA-EXT;  
Bearing resolution: 0.1° displayed. Internally calculated to 0.01°  
Heading sensor accuracy: 0.5° RMS standard; ±0.1° resolution/repeatability  
Pitch/Roll sensor accuracy: ±0.10° RMS ±0.1° resolution/repeatability
- External battery: Part number BPK-101G, 10 day operational life, non-rechargeable.  
Part number BPK-101G-R, rechargeable  
With interconnect lead, part number, BPK-101G-4000, 3m standard.
- External RF antenna for MiniPod BCN-101G-EXT or BCN-101GA-EXT;  
Omni-directional: Part number BCN-101G-4003. Directional: Part number BCN-101G-4002



Due to continual product improvement, specification information may be subject to change without notice.  
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