MiniPod 101G, GPS receiver

Key Features

- Robust GPS receiver with integrated L1 + L2 antenna
- Submersible, 10m rated.
- Wide area corrections or external RTCM
- Internal and external shock mounts
- Atlas correction option
- Worldwide RF remote wireless data options
- External battery 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

The Modulus Technology MiniPod 101G is a lightweight ruggedised GPS receiver that is designed to survive 10m immersion.

The shock mounted robust dual L1 + L2 band GPS 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 MiniPod allows for RS232, RS485, 1PPS and wireless options to be configured. It is externally powered by default with an external battery option.

Technical Specification

MODEL TYPE – PHYSICAL SPECIFICATION

Housing material: White Acetyl. Bracket A4 Stainless steel

<table>
<thead>
<tr>
<th>MiniPod 101G</th>
<th>Survival Depth</th>
<th>Diameter</th>
<th>Length</th>
<th>Weight air/water</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10m</td>
<td>115mm</td>
<td>170mm</td>
<td>1.95kg</td>
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</tbody>
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MiniPod 101G specification continued...

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, RTK, L-Band (Atlas) DGPS

Horizontal Accuracy (RMS 67%) Dependent on corrections:

<table>
<thead>
<tr>
<th></th>
<th>Accuracy</th>
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</thead>
<tbody>
<tr>
<td>RTK</td>
<td>8mm + 1ppm</td>
</tr>
<tr>
<td>SBAS (WAAS)</td>
<td>0.3m</td>
</tr>
<tr>
<td>Unaided</td>
<td>1.2m</td>
</tr>
<tr>
<td>Atlas H10</td>
<td>0.04m</td>
</tr>
<tr>
<td>Atlas H30</td>
<td>0.15m</td>
</tr>
<tr>
<td>Atlas H100</td>
<td>0.50m</td>
</tr>
</tbody>
</table>

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

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)
Position Protocol: NMEA 0183 protocols supported
Refresh Rate: 1Hz standard, 10Hz, 20Hz optional
Correction I/O Protocol: Hemisphere GNSS proprietary, ROX Format, RTCM v2.3, RTCM v3.2, CMR, CMR+
IPPS 5V, 1ms pulse width, 20mA optional

OPTIONS

Wireless modem with optional external antenna: Part number # RFR-101G, vessel wireless data receiver

External battery: Part number # BPK-101G-10 (10 days), or # BPK-101G-5 (5 days)