107GS MiniPod, Satellite Relocation Device

**Key features**

- Remote tracking
- Global satellite connectivity, utilising the IsatData Pro service
- Submersible, 3000m rated
- Multi GNSS receiver
- Internal shock mounts, satellite modem MIL-STD rated
- Ruggedised for harsh environments

**Applications**

- Remote asset monitoring
- Relocation of subsea assets, AUV, ROV, cable plough
- Ocean AUV surface GNSS positioning
- Satellite modem

**107GS MiniPod Overview**

The 107GS MiniPod is a shock-mounted and ruggedised satellite transceiver / GNSS receiver that is designed to survive 3000m immersion for relocation and positioning of subsea assets at the sea surface.

The 107GS MiniPod automatically switches on at the sea surface to acquire satellite positions. This GNSS lock minimises cold start times to provide auto tracking.

The 107GS MiniPod is externally powered by a rechargeable battery pack.
Technical Specification

MODEL TYPES – PHYSICAL SPECIFICATION

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Survival Depth</th>
<th>Diameter</th>
<th>Length</th>
<th>Weight air/water</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCN-107GS</td>
<td>3000m</td>
<td>203mm</td>
<td>285mm</td>
<td>14kg/6.5kg</td>
</tr>
<tr>
<td>BPK-107G-R-R</td>
<td>3000m</td>
<td>125mm</td>
<td>600mm</td>
<td>16kg/12kg</td>
</tr>
</tbody>
</table>

SATELLITE COMMUNICATION

Satellite service
IsatData Pro

Elevation angle
-5° to +90°

GNSS CONFIGURATION

Receiver type
GNSS Multi-frequency

GNSS compatibility
GPS, GLONASS, BeiDou, QZSS & GALILEO

Real time tracking
Pole Star. Online registration and subscription services

HORIZONTAL ACCURACY

GPS
2.5 - 2.0m

GLONASS
4.0m

BeiDou
3.0m

GPS + GLONASS
2.5-2.0m

GPS + BeiDou
2.5-2.0m

Accuracies dependent on multipath environment, number of satellites in view, geometry & ionospheric conditions.
All satellites at -130dBm.
Circular Error Probable (CEP), 50%, 25 hours Static @ -130dBm

CONNECTIVITY

Connector
8 pin MCBH connector (male)

Power
12-36VDC
18V nominal

Due to continual product improvement specification information may be subject to change without notice.
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aae technologies Ltd.
OPERATION

| Warm up time (Typical) | From cold: <60s  
Hot start: <10s |
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Automatic switch on</td>
<td>Factory set to operate at &lt;15 psi water pressure</td>
</tr>
</tbody>
</table>
| Operational life      | From fully charged BPK-107G-R battery:  
Receiver life: GNSS + Satellite, 10 days continuous  
Transmit life: 70 hours continuous updates |

BATTERY, PART NUMBER, BPK-107GS-R

<table>
<thead>
<tr>
<th>Battery type</th>
<th>NiMH rechargeable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>21Ah at 20°C fully charged</td>
</tr>
<tr>
<td>Voltage</td>
<td>16.8V nominal, 21V charged</td>
</tr>
<tr>
<td>Fast charger type</td>
<td>Applied Acoustics' 1083 Multi-Charger. Part number CHA-1083</td>
</tr>
<tr>
<td>Trickle charge</td>
<td>22-35V 120mA</td>
</tr>
<tr>
<td>Connection</td>
<td>8 pin MCBH connector (female)</td>
</tr>
<tr>
<td>Interconnect cable</td>
<td>Length, 5m standard. Part number, BPK-107GS-4000</td>
</tr>
</tbody>
</table>