1000 Series Mini Beacon

**Key Features**

- AAE proprietary Sigma bi-directional spread spectrum technology
- Quick and easy configuration
- Directional or omni-directional beam pattern options available
- Externally configurable as transponder, responder or pinger
- High power option model to operate longer ranges
- Options for use with remote transducers

**Applications**

- General purpose tracking and positioning applications
- Static and dynamic operations e.g. ROV, sidescan sonar.

**Technical Specification**

**MODEL TYPES – PHYSICAL SPECIFICATION**

Housing material: Hard anodised aluminium, with clear protection sleeve and stainless steel cage

<table>
<thead>
<tr>
<th>Model</th>
<th>Beam Pattern</th>
<th>SPL*</th>
<th>Survival Depth</th>
<th>Diameter</th>
<th>Length</th>
<th>Weight in air</th>
</tr>
</thead>
<tbody>
<tr>
<td>1015</td>
<td>±45°</td>
<td>194dB</td>
<td>2000m</td>
<td>74mm</td>
<td>410mm</td>
<td>3.08kg/1.46kg</td>
</tr>
<tr>
<td>1015H</td>
<td>High Power</td>
<td>±30°</td>
<td>196dB</td>
<td>74mm</td>
<td>410mm</td>
<td>3.08kg/1.46kg</td>
</tr>
<tr>
<td>1019</td>
<td>±90°</td>
<td>188dB</td>
<td>1500m</td>
<td>74mm</td>
<td>395mm</td>
<td>2.88kg/1.38kg</td>
</tr>
<tr>
<td>1022</td>
<td>±20°</td>
<td>202dB</td>
<td>4000m</td>
<td>95mm</td>
<td>418mm</td>
<td>5.03kg/2.75kg</td>
</tr>
</tbody>
</table>

*SPL is effective SPL when used with IXblue GAPS USBL systems.

**ELECTRICAL SPECIFICATION**

**Battery**

<table>
<thead>
<tr>
<th>Battery type</th>
<th>Rechargeable. NiMH as standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening life</td>
<td>60 days</td>
</tr>
</tbody>
</table>
1000 Series Mini Beacon Technical Specification

Operational life, AAE Spread Spectrum

Dependent on pulse rate and operational mode

1015: 150 hours at 1.0pps
1015H: 100 hours at 1.0pps
1019: 150 hours at 1.0pps
1022: 100 hours at 1.0pps

Operational life reduced when used with non AAE USBL systems.

Configuration

Transmit frequency range 24 - 33.5kHz
Receive frequency range 17 - 31kHz
Turnaround time 15/30/60/100ms dependent on channel selection
Transmit pulse width 1.5/3.0/10ms dependent on channel selection

External Inputs

Connector type MCBH5M 5-way connector
Responder key + 5 to 25 Volts
External power 22 to 35 Vdc@80mA
Charge Onboard fast charger for 3 hour charge, typical. Activated and monitored via 1082 Smart Switch or 1083 Multi-Charger

USBL COMPATIBILITY

AAE 1000 Series beacons use Tone, Chirp, MFSK, DSSS and FHSS as transmission/reception protocols, allowing cross-compatibility with many USBL systems, including:

AAE Nexus Spread Spectrum systems
AAE Easytrak All models, tone systems
iXblue GAPS USBL
Kongsberg HPR/HiPAP
ORE/Edgetech USBL
Sonardyne USBL

OPTIONS

- Compatibility with USBL systems not listed above
- Non-rechargeable batteries (alkaline)
- Toroidal beam pattern version, Model 1019T
- Survival depth to 4000m
- Remote transducer (supplied with Model BCN-1010 electronic bottle); RM90, omni-directional rated to 1500m. RM45, directional, rated to 2000m. Inter connect cable for each option, 2m standard
- Depth sensors 100m/300m/1000m/2000m/4000m (adds D suffix to model number)
- Digital depth transmission when used with AAE Nexus USBL systems
- Floatation collar