# **Applied Acoustic Engineering Ltd**



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# **1000 Series Fatboy Beacon**



**1000 Series Fatboy Beacons** are ideal for deep water operations, noisy and acoustically challenging environments, and applications requiring long operating ranges.

Fatboy transponders incorporate Applied Acoustics' proprietary Sigma acoustic protocols, allowing extremely stable and reliable performance with Nexus USBL systems, whilst maintaining compatibility with almost all of the industry's other standard USBL systems.

# **Key Features**

- AAE proprietary Sigma bi-directional Spread Spectrum technology
- Quick, easy configuration
- On-board fast charger for typical 8 hour charge time
- Survival depth to 4000m as standard
- Options for use with remote transducers

# **Applications**

- General purpose tracking and positioning applications in deeper water or challenging environments
- 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

	Beam Pattern	SPL*	Survival Depth	Diameter	Length	Weight in air
1062	±15°	208dB	4000m	130mm	652mm	14.82kg/6.62kg
1065	±45°	203dB	4000m	130mm	652mm	14.82kg/6.62kg

<sup>\*</sup>Effective SPL is 5dB less when used with iXBlue GAPS USBL systems

#### **ELECTRICAL SPECIFICATION**

## **Battery**

Battery type Rechargeable. NiMH as standard

Listening life 90 days



# 1000 Series Fatboy Beacon Technical specification continued...

Operational life, AAE Spread Spectrum Dependent on pulse rate and operational mode

> 110 hours at 1.0pps 110 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

Turn around 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

+ 5 to 25 Volts Responder key

External power 22 to 35 Vdc@120mA

Charge Onboard fast charger for 4 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** HPR/HiPAP Kongsberg ORE/Edgetech USBL Sonardyne USBL

#### **OPTIONS**

Compatibility with USBL systems not listed above

Non-rechargeable batteries (alkaline)

Remote transducer (supplied with Model BCN-1060 electronic bottle); RM90, omni-directional rated to 1500m. RM45, directional, rated to 2000m. RM15, directional, rated to 4000m. Interconnect cable, 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



Due to continual product improvement, specification information may be subject to change without notice. 1000 Series Fatboy Beacon/March 2015 ©Applied Acoustic Engineering Ltd.



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