

# 1160 Series Fatboy Beacon



## Key features

- aae Sigma II bi-directional spread spectrum technology
- User configurable Tx power and Rx Gain
- Multi-Fire common interrogate capability
- MiQ data telemetry functionality
- Quick, easy configuration
- On-board fast charger for typical 8 hour charge time
- Survival depth to 4000m as standard

## Applications

- General purpose tracking and positioning applications in deeper water or challenging environments
- Static and dynamic operations e.g. Deep water ROV, subsea cable burying applications

## Series Fatboy Beacon Overview

The 1160 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 Pyxis and Nexus USBL systems, whilst maintaining compatibility with almost all of the industry's other standard USBL systems.

# Technical Specification

## MODEL TYPES – PHYSICAL SPECIFICATION

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

Model	Beam Pattern	SPL*	Survival Depth	Diameter	Length	Weight in Air / Water
1162	±15°	206dB	4000m	130mm	652mm	14.80kg/6.60kg

\*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
Operational life, aae Sigma 2	Dependent on pulse rate and operational mode Spec at max operating power, position only. Operation life will increase with lower power and decreased repetition rates <b>1162:</b> 24 hours at 1.0pps

### CONFIGURATION

Transmit frequency range	21 - 31kHz
Receive frequency range	17 - 31kHz
Turnaround time	Auto select upon protocol. User defined
Transmit pulse width	Auto select upon protocol
Transmit Power Level	User programmable
Receiver Gain	User programmable
Refresh rate	>1Hz
Multi-Fire	10 IDs
MIQ data telemetry	Navigation + Data @ 800Bps payload Fixed RS232 interface @ 9600, 8, N, 1

### EXTERNAL INPUTS

Connector type	MCBH5M 5-way connector
Responder key	+ 5 to 25 Volts
External Power	22 to 35 VDC @120mA
Charge	On-board fast charger for 4 hour charge, typical. Activated and monitored via 1082 Smart Switch or 1083 Multi-Charger

## USBL Compatibility

aae 1160 Series beacons use Tone, Chirp, MFSK, DSSS and FHSS as transmission/reception protocols, allowing cross-compatibility with many USBL systems, including:

- aae Nexus, Nexus 2, Pyxis: Sigma 1, Sigma 2 spread spectrum systems
- aae Easytrak: All models, tone systems
- iXblue: GAPS USBL
- Kongsberg: HPR/HiPAP

## Options

- Compatibility with USBL systems not listed above
- Non-rechargeable batteries (alkaline)
- Remote transducer (supplied with Model BCN-1160 electronic bottle); RM15, directional, rated to 4000m. Interconnect cable, 2m standard
- Depth sensors 100m/200m/300m/1000m/2000m/4000m (adds D suffix to model number)