

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° | 208dB | 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 II | 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 1162: 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 1130 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)