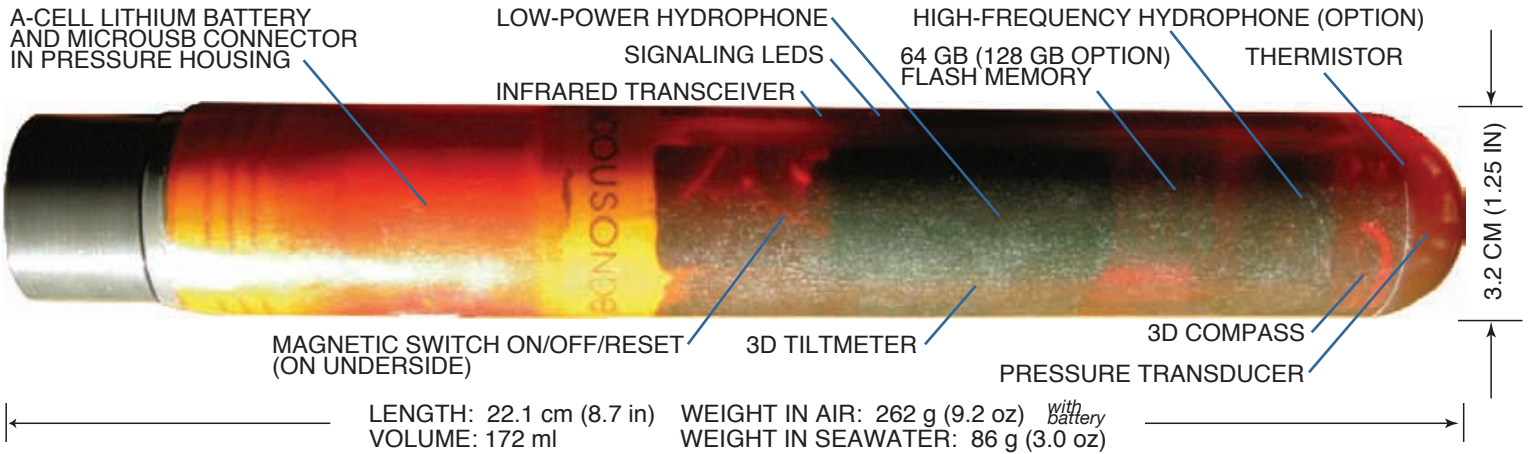


ACOUSONDE™



The Acousonde™ is a self-contained underwater acoustic recorder comprising one or, optionally, two hydrophones, sensors for attitude, orientation, depth and temperature, a digital recorder, and a field-replaceable battery. Attached to a subject with suction cups or other means, the Acousonde measures the subject's sound environment as well as potentially associated behavior.



Lori Mazzuca



Ward Testa

In addition to its primary mission as a tool for assessing the impact of noise on marine wildlife, the Acousonde can be used to study vocalization behavior of the tagged subject. The instrument may also be applied as an autonomous recorder suspended from a cable, placed on the seafloor, or housed in a robotic or remotely-operated vehicle.



Lori Mazzuca

SPECIFICATIONS, ACOUSONDE 3A UNDERWATER ACOUSTIC RECORDER

Maximum operating depth (fixed build option)	500 m (-500m suffix) / 1000 m (-1km) / 2000 m (-2km) / 3000 m (-3km)
Maximum continuous acoustic sampling rate	232 kHz
Anti-alias filter, low-power (LP) channel	8-pole elliptic, adjustable (automatic) up to 9.2 kHz maximum
Anti-alias filter, high-frequency (HF) channel	6-pole linear phase, fixed
3-dB anti-alias cutoff	9.2 kHz (LP chan max); 42 kHz (HF chan)
22-dB anti-alias cutoff	11.1 kHz (LP chan max); 100 kHz (HF chan)
3-dB high-pass cutoff	22 Hz (LP chan); 20 Hz/1 kHz/10 kHz (HF chan, fixed, customer spec)
Unamplified raw ceramic sensitivity, re 1 V/ μ Pa	-201 dB (LP chan hydrophone) & -204 dB (HF chan hydrophone)
Saturation at 0-dB gain, re 1 μ Pa zero-peak	187 dB (LP chan) & 176 dB (HF chan)
Acoustic gains, selectable at deployment	0 or +20 dB
Acoustic sampling resolution	16 bits
Auxiliary sampling rate	Up to 800 Hz (3D tilt), 40 Hz (3D compass), 10 Hz (depth, temp)
Auxiliary sampling resolution	16 bits (except 10 bits for tilt)
Auxiliary sampling channels	Depth (pressure), internal temperature, 3D tilt, 3D compass
Total storage capacity (primary & spare)	64 GB, 128 GB max (at sample rates < 26 kHz, battery limits storage)
Maximum duration if sampling < 26 kHz	6-14 days depending on temperature and if aux sampling also active
Maximum measured data download rate	3.3 GB/hour via MicroUSB connector

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Firmware support for some specifications, performance and/or functionality may be pending; see current release notes. Data subject to change without notice.

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The Acousonde™ is made by Acoustimetrics, a brand of Greeneridge Sciences, Inc.