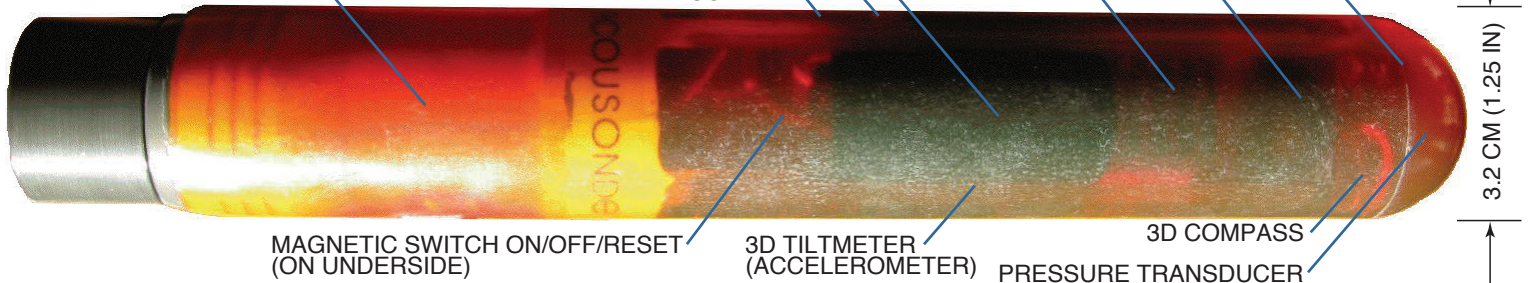


ACOUSONDE™

A-CELL LITHIUM BATTERY AND MICROUSB CONNECTOR IN PRESSURE HOUSING

LOW-POWER HYDROPHONE
SIGNALING LEDS
INFRARED TRANSCEIVER

HIGH-FREQUENCY HYDROPHONE (OPTION)
16 GIGABYTES FLASH MEMORY
THERMISTOR



LENGTH: 22.1 cm (8.7 in) WEIGHT IN AIR: 262 g (9.2 oz) ^{with battery}
VOLUME: 172 ml WEIGHT IN SEAWATER: 86 g (3.0 oz)

The *Acousonde*™ is a self-contained underwater acoustic recorder comprising 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.

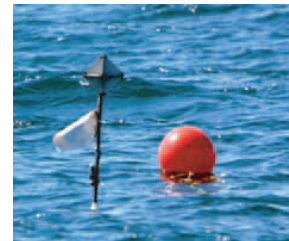


Lori Mazzuca



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 CYLINDRICAL UNDERWATER ACOUSTIC RECORDER

Maximum designed operating depth	Typically limited by choice of pressure sensor; max 3000 m
Maximum continuous acoustic sampling rate	232 kHz
Anti-alias filter, low-power channel	8-pole elliptic, adjustable (automatic) up to 9.2 kHz maximum
Anti-alias filter, high-frequency channel	6-pole linear phase, fixed
3-dB bandwidth	9.2 kHz (low-power channel max.), 40 kHz (high-frequency channel)
22-dB bandwidth	11.1 kHz (low-power channel max.), 100 kHz (high-frequency channel)
Unamplified hydrophone sensitivity, re 1 V/ μ Pa	-201 dB (low-power channel) & -204 dB (high-frequency channel)
Saturation at 0-dB gain, re 1 μ Pa zero-peak	187 dB (low-power channel) & 172 dB (high-frequency channel)
Acoustic gains, selectable at deployment	0 or +20 dB
Acoustic sampling resolution	16 bits
Auxiliary sampling rate	Deployment-time choices ranging from 40 Hz to once every 5 s
Auxiliary sampling resolution	16 bits (except 10 bits for acceleration/tilt)
Auxiliary sampling channels	Depth (pressure), internal temperature, 3D acceleration/tilt, 3D compass
Storage capacity	16 gigabytes (note: battery energy may not suffice to fill storage)
Life at 2 kHz acoustic sampling rate	46 days (if battery sufficient to fill entire 16-gigabyte storage capacity)
Maximum measured data download rate	490 kilobytes/s, via MicroUSB connector

Firmware support for some specifications, performance and/or functionality may be pending. Specifications subject to change without notice.

HOME PAGE <http://www.acousonde.com>
E-MAIL info@acousonde.com



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