

CASE Abyss™

Ocean Bottom Node Acquisition System



FEATURES AND BENEFITS

- ▶ Deck handling system ensures safety and reliability
- ▶ Long range acoustic modem communication between the node and surface ensures the node continues to record data
- ▶ Controlled planting and maximal coupling of the external sensor unit provides reliable data
- ▶ Long-endurance battery provides more than 120 days of continuous data recording

Fully Autonomous Multicomponent Seabed Seismic System

Ocean Bottom Seismic (OBS) node technology images blind spots of conventional acquisition methods. The nodes are cable-free, firmly coupled to the seafloor, and suitable for both extremely congested and open water areas.

The CASE Abyss

Long-endurance, 4-component OBS node with integral recording system and power supply for over 120 days continuous data recording. The CASE Abyss provides maximum vector fidelity with controlled planting of the sensor unit ensuring excellent coupling to the seafloor. Its high accuracy Cesium atomic clock typically has drift of <1.9 ms per month and a correction algorithm will be applied if required.

CASE ABYSS GENERAL SPECIFICATIONS

Physical

Weight in air:	165 kg
Weight in water:	60 kg
Dimensions:	1000 mm x 1000 mm
Height:	400 mm

Operational/Environment

Max operating depth:	3000 m
Battery capacity:	120+ days

Sensor

Hydrophone:	HTI 96-MIN 2.0 Hz (-3dB)
Geophone type:	Sensor SM-6 O/B 8 Hz, 0.7 Shunted damping
Tilt sensor:	2 calibrated horizontal axes, Range +/- 90 deg @ 0.1 deg, +/- 0.25 deg

Data Recording System

Seismic channels recorded:	4
Sample rate:	2 ms

Recording Capacity:

Solid State Disc:	160 GB, 200+ days @ 32-bit recording resolution. Zero-loss data compression is optional
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Time Synchronization:	GPS derived IRIG-B and 1PPS, Onboard synch link: Latency 50 ns, Jitter +/- 10 ns
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Clock Stability:	Clock skew: +/- 63microsecond/day Clock aging: 13 microsecond/day Max drift after correction 1.3 ms per month
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