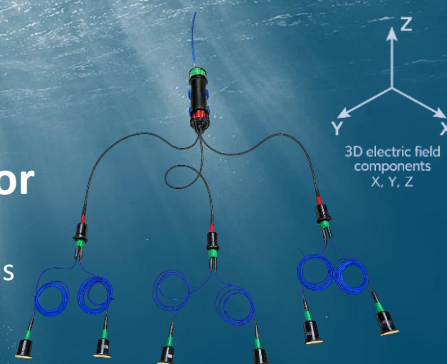


ESENSE

Ultra-High Sensitivity Electric Field Sensor

A new standard for the detection of underwater electric fields



KEY FEATURES

< 10 pV/m @ 1Hz

Best-in-class Sensitivity

DC - 2000 Hz

Wideband

Dry Electrodes

Robust Titanium

Self-Calibration

For Persistent Deployment

4 kHz

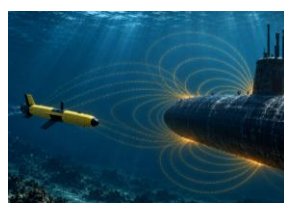
High Sampling Rate

DEFENSE & SECURITY - APPLICATIONS



Counter - UxV

Detection of intruder's propulsion systems
Efficient in acoustically noisy environment



EM Signature Intelligence & Management

Precise multiphysics signature measurements
Characterize adversary signatures



ASW

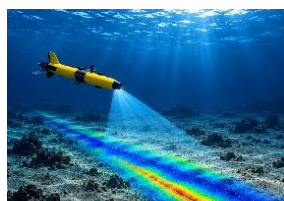
Towed array and sonobuoy integration
Robust in adverse acoustic propagation conditions



MCM

SONAR contact electrical activity check
Focus neutralization efforts on real threats

OFFSHORE - APPLICATIONS



Cable Inspection

Mapping and tracking of power & communication cables
Burial-depth assessment
Detection range: + 10 m



Pipeline CP Survey

High accuracy field gradient measurements
Contactless CP survey



Environmental Impact

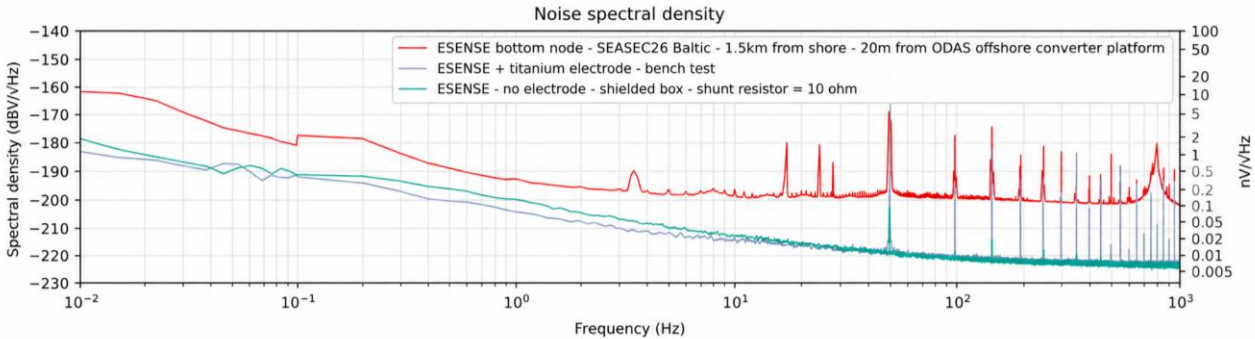
Electric field & Multiphysics monitoring



Diver Safety

Keep divers safe from underwater electric hazards

ULTRA-LOW NOISE PERFORMANCE



TECHNICAL INFORMATION

Absolute Maximum Rating :	4 V/m	Galvanic Insulation :	Yes, by insulation amplifier
Full Scale Amplitude :	+/- 7 mV/m	Linearity (analog) :	< 0.5% (with ELWAVE electrodes)
Gain (dB) :	Selectable by command 40 / 60 / 80 / 100dB analog amplifier	Export Control :	Dual-use (ITAR free)

PRODUCT VERSION

ESENSE OEM

PCB (1 per system)

- 50.8mm x 78.7mm ; 28g
- 6 coaxial connectors
- Input: 4.5-13 V DC (1.75W @ 4000 sps)
- Output: serial timestamped data
- Configurable filters, gains and sampling rate (from 10 to 4000 sps)

Titanium electrodes with coaxial cable & connector (up to 3 pairs per system)

- typical Ø80mm : 98g (custom design and coating on demand)
- coaxial cable length on demand



ESENSE 300

300m depth rated Aluminum (6000m Titanium on demand)

POD (1 per system)

- 464,4mm X Ø145mm ; 6,5Kg/1,3Kg (air/water)
- Input /Output SubConn connector for ethernet link
- Power IN 20-48V DC (25W peak, nominal 12W)
- 8 x SubConn connectors to Hubs

Hub (up to 3 per system)

- 207mm x 80mm x 80mm ; 0,65Kg / 0,25Kg (air/water)
- Input: 2 x SubConn connectors (coaxial to electrodes)
- Output: 1x SubConn connector (ethernet to POD)

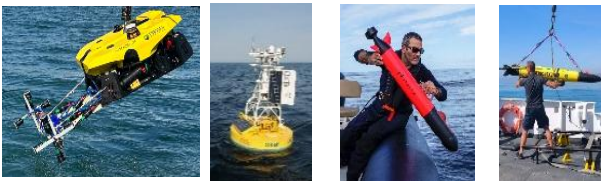
Electrodes (up to 3 per system)

- 137mm x 90mm x 90mm ; 0,7Kg / 0,35Kg (air/water)
- Output: 1x SubConn connector (ethernet to POD)



DELIVERED WITH
OWLIA SOFTWARE

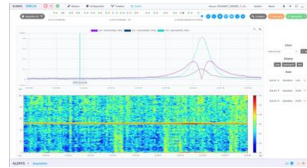
MULTI-PLATFORM INTEGRATION



OWLIA SOFTWARE

Data Acquisition & Analysis software

- Real time visualization and replay
- X, Y, Z electric field plots
- X, Y, Z electric field spectrograms
- Demodulation & digital filtering
- Timeline, eventing, data export to CSV



FIELD-PROVEN

