

SeapiX-R

Volume 3D sonar for fishery research

SeapiX-R is a solid-state 3D multibeam sonar that provides accurate water column coverage, biomass assessment and seabed mapping. It brings new insights to the scientific community for the evaluation and the monitoring of marine environments.



FEATURES

- 120°x1.5 volume coverage
- Target strength split beam measurement in all beams (TS)
- Volume backscattering strength measurement (SV)
- In-situ calibration on a standard target (tungsten carbide 22mm)
- Backscattering strength measurement (BS) and bathymetry (IHO special order; 1a in stand-alone)
- Real-time single-echo detection
- Highly configurable (scenarios, data needed, real-time streams)
- No blind zone

SETTINGS

- Tilted installation possible: side-looking sonar
- Installation on pole, hull, buoy
- Light antenna and top side (optional)

APPLICATIONS

- Fishery research
- Fish migration monitoring
- Biomass monitoring
- Seabed characterization

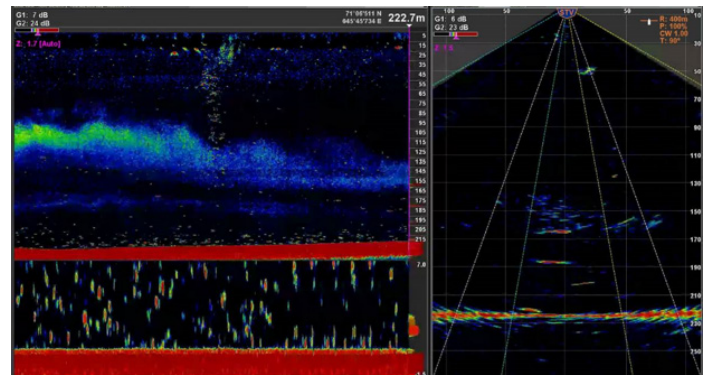
DATA VISUALIZATION

- 3D shoal behavior and fish avoidance study
- Displaying acoustic swaths, echograms, GBA outputs and seabed bathymetry/backscatter values
- Data format export to Echoview and Movie 3D
- Real-time stream to Delph interpretation and Olex

TECHNOLOGY

SeapiX is the first compact civilian system comprising a dual Mills Cross multibeam sonar transducer offering total liberty of control. Its transducer generates several simultaneous multibeam transmissions and acoustic processes to yield quantitatively and qualitatively impressive measurements of the marine environment.

Its multiple advanced modulation modes, including CHIRP, combined with Doppler processing, are guarantees of the highest possible detection performance, even in difficult conditions.



TECHNICAL SPECIFICATIONS

Frequency	145 kHz to 155kHz
Modulation	CW and CHIRP
Across track multibeam swath	64 channels, stabilized
Along track multibeam swath	64 channels, stabilized
Beam stabilization	TX + RX, built-in MRU
Beam resolution	1.6° angular / 7.5 cm radial
Triple echograms from all swath	Adjustable from 1° to 120° each
Typical range	Biomass 400m, Bathymetry 600m
Volume resolution	0.6m ³ @100m
Volume coverage	120° x 120°
Signal processing	SV, TS, NORM, calibrated
SED fish extraction	Up to 200.000 single fish detections
Transmission power	4KW