



Model 2100

Multi-Function Sonar for Mixed Species Environments

Broadband

Multi-Frequency

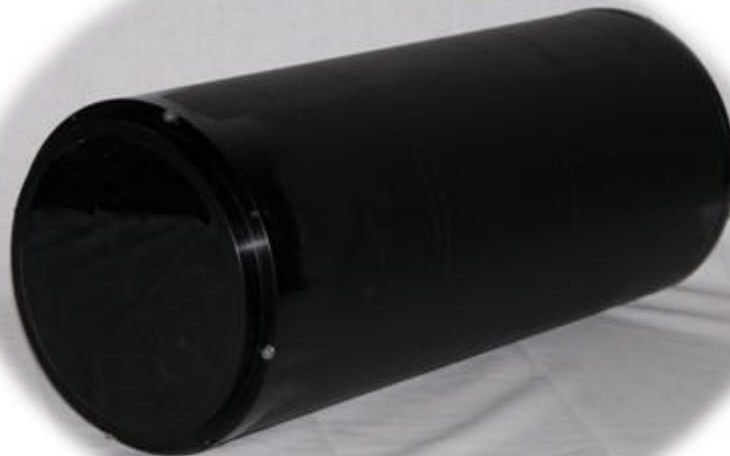
Split-Beam

Proven

Portable

Rugged

Competitively Priced



The Model 2100 is a multi-function sonar that can be operated as a broadband sonar, multi-frequency sonar, or a split-beam sonar, with the ability to switch from one mode to the other on a ping-by-ping basis from user-selectable settings.

- The **broadband mode** utilizes pulse compression to get high spatial resolution, allowing targets as small as 1.2cm to be resolved and providing exceptionally clear target images. Broadband pulses also provide a rich target return that can be subjected to spectral analysis and aid in species recognition.
- The **split-beam mode** is ideally suited for fisheries management to detect, count, and track fish near the surface of lakes, seas, or the ocean. The unit has been independently verified to count up to 3,000 fish per hour, so it is well suited for both high and low volume fisheries. Because the SB system can determine the fish position, behavioral analysis of the fish can be performed.
- The **multi-frequency mode** allows the user to specify three specific frequencies of interest. With 3 5-kHz ranges to choose from, you can select the values that are most applicable to your fishery based on a species acoustic reflectivity. When in multi-frequency mode, the system utilizes a proprietary colorization algorithm for each of the three frequency ranges as output for analysis.

The Model 2100 is a system designed for shipboard or shore based deployment to detect and track fish and marine mammals. The system interfaces with a terminal box that allows the user to adjust settings such as gain and transmit power to best suit the conditions in the field. The system may be left unattended for as long as it is powered. All raw data is stored for later analysis.

The Model 2100 provides a cost effective method of performing multi-species fish stock assessment in challenging environments. Previous uses of the system include manatee and sea lion monitoring, salmon stock assessment, and discriminating macrophytes from smolt. The potential for broadband is still in its infancy and there are many more uses yet to be discovered.

Washington Office

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2100

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Specifications

Beam Shape / Width		Conical 6° at 175 kHz
Frequency	Broadband	130 kHz to 200 kHz
Frequency	Split-Beam	175 kHz
Waveform	Broadband	Sweep
Waveform	Split-Beam	Continuous Wave
Source Level		214 dB @ 175 kHz
Detection Range (min/max)		12 to 200 m @ 175 kHz
Range Resolution	Broadband	0.8 cm
Power Settings		16, from 0 (listen only) to 15 (max)
Pulse Length	Broadband	11.1 µsec (compressed)
Pulse Length	Split-Beam	100 µsec
Ping Rate		1 ping / sec to 30 pings / sec
Bandwidth	Broadband	70 kHz
Bandwidth	Split-Beam	10 kHz
Gain		16 settings
A/D Conversion		2 M Samples / Sec
Angular Resolution	Split-Beam	0.1 degrees
Interface		TCP/IP Ethernet
Data Storage		4 channels, full raw data
Export Formats		Matlab, HAC
Analysis Software		Echoview, Matlab

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