

DIGITAL SCIENTIFIC ECHOSOUNDERS

BioSonics, Inc. – World Leader in Digital Scientific Echosounder Technologies



AUTOMATED HYDROACOUSTIC MONITORING SYSTEMS

- Quantify fish passage at hydro dams, water intakes, and other challenging environments
- Detect and count targets of interest in river, lake and nearshore marine environments
- 3-D TARGET TRACKING!

System Features

- Rack mounted electronics in durable storage case
- Pull out keyboard and integrated LCD monitor
- Multiplexing echosounder runs 4 or more transducers from single surface unit
- ETHERNET remote control, wired or WIRELESS
- Digital split-beam transducers
- Integrated orientation sensor input

Fixed Position Applications

- **Automation** - Data collection and storage functions are completely automated
- **Real time reporting** - Reports/alerts provide valuable information to project managers or to actuate a response
- **Watchdog software** - Continuously monitors echosounder performance, sends notifications of system operational status, eliminates lock-ups and data loss due to down time
- **Rotator integration** – Programmable, automated scanning to increase sampling area and ensure accurate transducer positioning
- **Fully autonomous** - Long term assessment of marine life abundance, behavior and migratory routes



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DT-X Series Technical Specifications and Features

Performance Features

- System Noise Floor: Extremely quiet -140dB
- Dynamic Range: Greater than 160dB
- Ping Rates: User selectable from 0.01 to 30 pings per second
- Pulse Duration: User selectable from 0.1 to 1.0 milliseconds
- Range Settings: User selectable
- Transmit Power: User selectable from 100 to 1000 Watts rms

Dimensions

- DT-X Echosounder Fits Standard 19" Rack
- Height: 3 U (rack units)
- Adjustable depth sizes available (16"- 24")
- Digital Transducer (typical):
18 cm diameter X 17 cm - 4kg
(7 in diameter X 6.5 in - 9.5 lbs.)

Power Requirements

- 10-14 Volts DC or
- 85-264 Volts AC
- 30 Watt consumption

Digital Transducers

- Acoustic data fully digitized within the transducer
- Wide range of standard frequencies for numerous fisheries and habitat assessment applications; 38, 70, 120, 200, 420, & 1000 kHz
- Ultra-low side lobes to -35 dB
- Network four or more separate transducers at four distinct frequencies from a single echosounder
- Digital signal cables 8 - 160 meters (25 - 500 feet)
- Heavy duty anodized aluminum or stainless steel housings

Echosounder Surface Unit

- Fully programmable, multiple transducer, multiplexing configuration
- Military grade connectors
- Self diagnosis and calibration on start-up
- High resolution, full color echogram
- Numerous, user selectable, software controlled configuration, display and data storage options
- Integrated orientation and other external sensor inputs

Data Analysis Software Features

- Echo counting
- Target strength analysis
- Population and biomass estimation
- EMS deconvolution
- Target tracking and behavior
- Simultaneous echo integration and target recognition



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