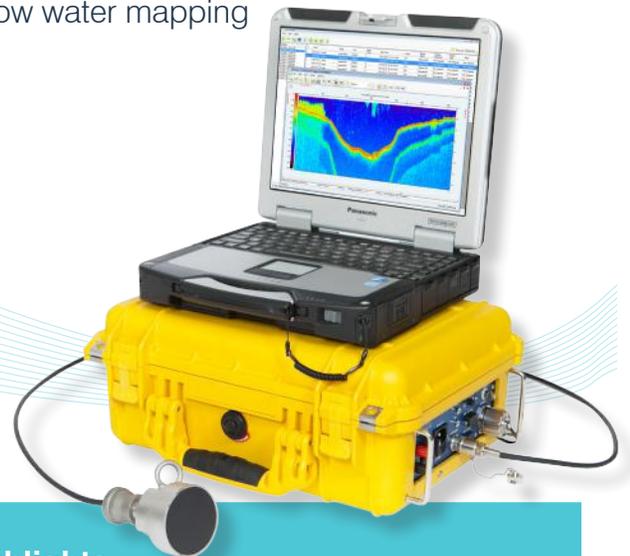*BioSonics*®

MX

AQUATIC HABITAT ECHOSOUNDER

Applications

- Map submerged aquatic vegetation
- Map eelgrass and other habitat areas
- Track invasive aquatic weeds
- Delineate areas of sand, mud, rock
- Generate contour profiles
- Shallow water mapping

Product Highlights

- Simultaneously map submerged aquatic vegetation, classify substrate, and collect bathymetry data
- Portable, weatherproof, and rugged with storage for cables and transducer
- Precision instrument, calibrated and highly accurate
- Complete with software for data acquisition, processing and visualization
- GENERATE MAPS INSTANTLY
- Integrated DGPS to geo-reference data
- High resolution, full color echogram

))BioSonics®

MX AQUATIC HABITAT ECHOSOUNDER

Echosounder Specifications

- Transmit Power: 105 Watts RMS
- Input power: 12-18 VDC or 85-264 VAC
- Draw: 5 Watts, Fuses: 1 Amp AC 1.5 Amp DC
- Transmit source level: 213 dB re 1uPa
- Pulse length: 0.4ms, Ping rate 5Hz
- Range resolution: 1.7cm
- Accuracy: 1.7cm +/- 0.2% of depth
- Depth range: 0-100m
- Operating condition: 0-50 °C
- DGPS positional accuracy: <3m, 95% typical
- DGPS velocity accuracy: 0.1 knot RMS
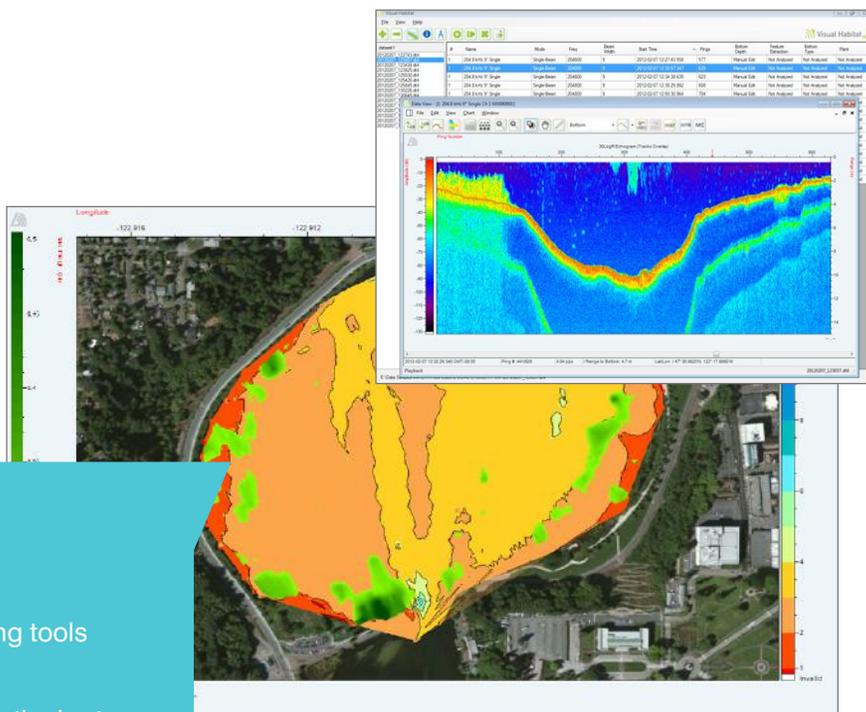- DGPS update rate: 1sec
- RS232 (GPS in/out)

Dimensions

- Echosounder Unit: 37cm x 26cm x 15cm
- (14.6" x 10.2"x 6"), Wt. 5.4 kg (12lbs)
- Transducer: 8.4cm L x 4.3cm diam (3.3"x1.7")
- 1.36 kg (3lbs), Stem threads ½" - NPS

Transducer

- Single frequency – 204.8 kHz
- Beam angle – 8.5 degree conical
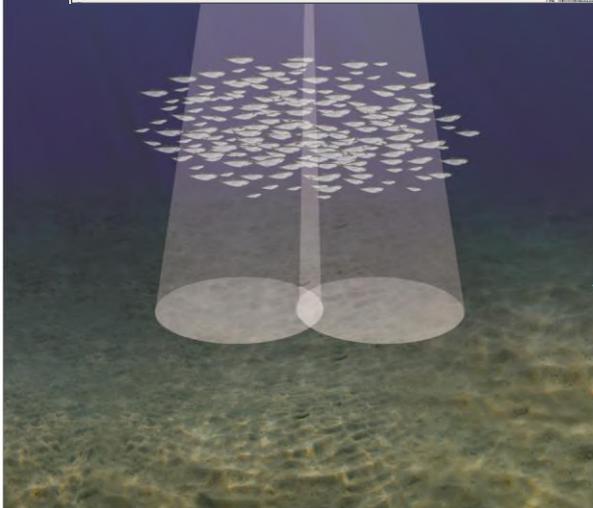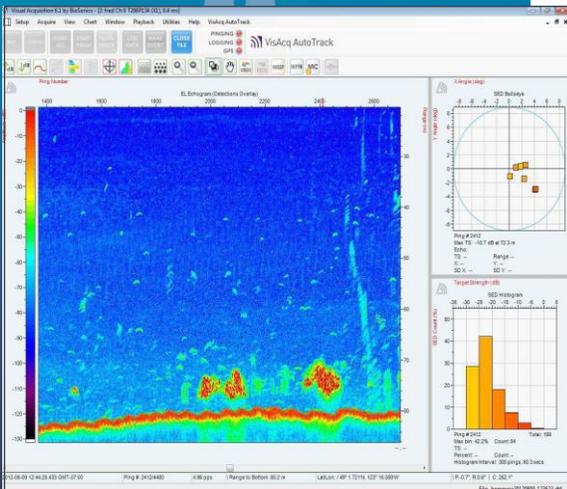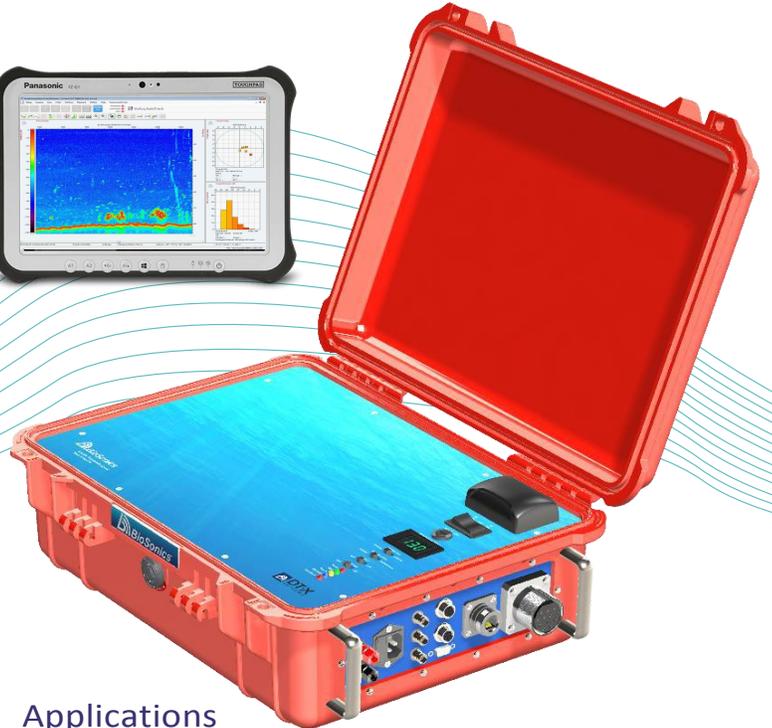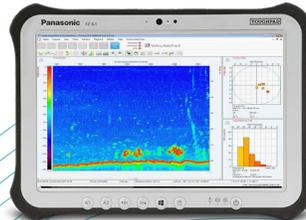- Heavy duty stainless steel housing

))Visual Habitat

Data Analysis Software Features

- Visual Habitat – Fast, user friendly mapping tools
- SAV – canopy height, % cover, biomass
- Bathymetry – produce highly accurate depth charts
- Substrate classification – ID rock, sand, mud
- Export results as CSV or KML files

DT-X EXTREME

AUTONOMOUS PORTABLE SCIENTIFIC ECHOSOUNDER

Applications

- Mobile surveys to assess fish population, biomass and size distribution
- Fixed-station monitoring at rivers, dams, water intakes
- ASV/USV surveys, surface buoys, and other unmanned or unattended deployments
- Fish passage, entrainment and migration studies
- Habitat mapping, seagrass, substrate classification and bathymetric surveys

Product Highlights

- Scientific split beam technology
- Operates with or without a PC or Tablet in autonomous mode
- Ultra-rugged IP67 metal connectors
- Log up to 30 days of data
- Programmable wake/sleep function
- Internal Wi-Fi router & DGPS, voltage monitor, and much more!

DT-X EXTREME AUTONOMOUS PORTABLE SCIENTIFIC ECHOSOUNDER

Echosounder Specifications

- Programmable LINUX-based embedded processor
- Wired or wireless ETHERNET control
- Real-time depth and speed output via NMEA 0183
- Internal DGPS with optional external interface
- Metal IP67 connectors
- High resolution, full color echogram
- System Noise Floor: Extremely quiet -140dB
- Dynamic Range: Greater than 160dB
- Selectable Ping Rates from 0.01 to 30 pps
- Selectable Pulse Duration: from 0.1 to 1.0 ms
- Split Beam Detection Range: 0.5 to 2,000 meters
- Transmit Power: 1000 Watts RMS
- Input Power: 11-26 VDC or 90-264 VAC
- Power Consumption:
  Active mode: 30 Watts; Sleep mode: <1 Watt
- Weights and Dimensions
  L: 49 cm (19") W: 39 cm (15") H: 19 cm (8"); Wt.: 11.4kg (22 lbs.)

Digital Transducer Specifications

- Signal digitization provides improved SNR and overall superior data quality
- Integrated Orientation Sensor included
- Wide range of frequencies:
- 38, 70, 120, 200, 420, & 1000 kHz
- Scientific grade split beam or single beam
- Ultra-Low side lobes to -35 dB
- Network up to 10 separate transducers at various frequencies
- **NEW** stainless steel bulkhead and cable connectors
- Anodized aluminum housings
- Weights and Dimensions:

  200, 400, 1000 kHz
  D: 18 cm (7.2") H: 17 cm (6.3") W: 4kg (9.5 lbs.)
  38, 70, 120 kHz
  D: 26 cm (10.3.") H: 22 cm (8.5") W: 14-17kg (30-38 lbs.)

BioSonics Data Collection, Data Analysis and Real-Time Reporting Software - INCLUDED!

Visual Acquisition — Echosounder configuration and data collection/playback

Visual Analyzer — Echo counting and echo integration for fish density and biomass estimation

VisAcq AutoTrack — Real-time processing and automated reporting for fisheries applications

Visual Habitat — Aquatic habitat mapping and assessment, measure plant canopy height and % coverage, SAV and substrate classification