

SeaBat® 7111

Multibeam Echosounder System



The SeaBat 7111 produces bathymetry data suitable for the generation of high resolution hydrographic charts exceeding international standards in water depths from 3 to 1000m. Operating at 100kHz, the system forms 101, 201 high-density, equi-angle or 301 equi-distant beams to cover a total receive sector of 150°.

The SeaBat 7111 transducer array is comprised of a cylindrical receive array and a linear transmitter array, mounted together on a support cradle that provides mounting points to the vessel. Lightweight and portable, the array can be installed temporarily over the side of a vessel of opportunity a first for a system in this frequency range.

The SeaBat 7111 is controlled by a high performance sonar processor that manages data flow and signal processing using a state-of-the-art FPGA architecture. The sonar processor provides a Windows®-based GUI user interface, allowing system configuration, control, data output, storage and built-in test environment (BITE) displays to assist the operator.

Equi-distant or equi-angular beam spacing across the entire swath is selectable by the operator to provide uniform sounding density and maximize usable outer swath. Data outputs include bathymetry, sidescan, snippets & beamformed water column data.

FEATURES

INSTALLATION

Unique portable system

MOUNTING

Suitable for vessel over-the-side, bow or hull mounting

FREQUENCY

100kHz frequency

BEAMS

101, 201 EA / 301 ED focused beams
SWATH150° swath coverage (7.5X depth)

BATHMETRY

Bathymetry & imagery from 3m to 1000m

OPERATION

Automatic operation

STABILISATION

Pitch stabilisation

IHO

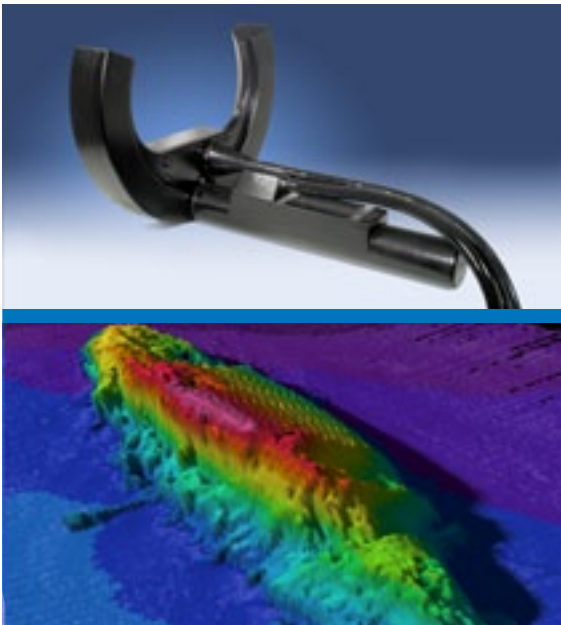
IHO compliant

OPTIONS

19" marine grade monitor
1 TB external RAID drive
SVP-70 sound velocity profiler with 25m cable
Service & maintenance agreement
7111 30m transducer cables
7111 spares kit

SEABAT 7111 SYSTEM SPECIFICATIONS

Frequency	100kHz
Pulse length	0.08ms to 3.04ms (selectable)
Typical depth	1m to 900m
Max depth	1000m
Depth resolution, sector coverage,	3cm, 150°
Number of beams	101, 201 EA or 301 ED
Along-track, across-track beamwidth	1.9°, 1.5° ± 0.05° (3.0°, 4.5°, 6.0° operator selectable)
Bottom detection method	Center-of-energy and phase-zero-crossing algorithm
Pitch stabilisation	±10° (motion sensor required)
Max update rate	20Hz (range selection dependent)
System supply	90 to 260 VAC 50/60 Hz, 350 W
System control	Trackball or from ethernet
Temperature: operating, storage	-5°C to +40°C, -30° to 55°C
Data output	Gigabit ethernet
Transducer array: weight	72kg (air), 59 kg (water) with cables
Sonar processor: dimensions, weight	431.4mm x 220.8mm x 559.5mm, 30kg
Transceiver: dimensions &, weight	267mm x 483mm x 489mm, 13.6kg
Hydrophone & projector dimensions	636mm x 118mm (Diameter/ Length), 113mm x 650mm (Diameter/Length)
Cable length	15m, 30m (optional)



WHY CHOOSE A SEABAT 7111 SYSTEM?

- Lightweight and portable system, which can be installed temporarily over the side of a vessel
- Sidescan and snippet, assisting with determination of detected features
- Advanced signal processing and bottom detect routines deliver second-to-none data quality
- Services and Support Agreement (SSA)

For more details visit www.reson.com or contact your local Teledyne RESON Office. Teledyne RESON reserves the right to change specifications without notice. 2012©Teledyne RESON

Teledyne RESON A/S

Denmark
Tel: +45 4738 0022
reson@teledyne-reson.com

Teledyne RESON Inc.

U.S.A.
Tel: +1 805 964-6260
sales@teledyne-reson.com

Teledyne RESON LTD.

Scotland U.K.
Tel: +44 1224 709 900
sales@reson.co.uk

Teledyne RESON B.V.

The Netherlands
Tel: +31 (0) 10 245 1500
info@reson.nl

Teledyne RESON Pte. Ltd.

Singapore
Tel: +65 6725 9851
singapore@teledyne-reson.com

Teledyne RESON Shanghai Office

Shanghai
Tel: +86 21 6473 5403
shanghai@teledyne-reson.com