SeaBat® T20-R
High resolution Multibeam Echosounder with fully integrated Inertial Navigation System

Superior acoustic quality engineered for the demanding marine environment

The SeaBat T20-R is a new addition to the leading SeaBat product range engineered from the ground up to evolve with your business. Combined with a Rack-mounted Sonar Processor (RSP), SeaBat T20-R provides uncompromised survey data in a highly compact package designed for small vessel use.

The solution includes a range of powerful software features at an attractive price, with the option for future feature expansions to grow with your needs.

The Rack-mounted Sonar Processor comes with an optional industry leading fully integrated Inertial Navigation System for accurate sensor time tagging and motion stabilization.

The SeaBat T20-R is designed for very fast mobilization on any type of survey vessels, securing minimal interfacing and low space requirements.

SeaBat T20-R Standard configuration

Rack-mounted Sonar Processor (RSP)
- Single point for all cable connections – for fast mobilization
- Accurate sensor time-tagging and motion stabilization from the optional integrated INS
- 10m cable configuration
- 2U form factor in standard 19” rack

SeaBat T20 sonar head assembly
- 190 – 420kHz wide-band sonar arrays
- Lightweight sonar bracket
- Robust titanium housing
- Less than 8kg in water

3 years warranty
Our hardware is quality-tested to meet the most demanding standards. Backed by the full support of our comprehensive after-sales program and 3 years of warranty, you can be sure that the SeaBat T20-R won’t let you down.

PRODUCT BENEFITS
- All-in-one, fully flexible and fully integrated survey system
- The compact system allows for fast mobilization, minimal interfacing and extremely low space requirements
- Impressively clean and high data quality for faster operational surveys and reduced processing time
- Fully frequency agile from 190 to 420 kHz, allowing for improved swath performance and reduced survey time under challenging conditions
- The new compressed water column data significantly reduces data volume while maintaining the required information
# SeaBat® T20-R System Specifications

<table>
<thead>
<tr>
<th>Input voltage</th>
<th>100-230VAC 50/60Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transducer cable length</td>
<td>10m (standard) Optional: 25m, 50m or 100m</td>
</tr>
<tr>
<td>Temperature (operational / storage)</td>
<td>Rack-mounted Sonar Processor: -5°C to +45°C / -30°C to +70°C Sonar-wet-end: -2°C to +36°C / -30°C to +70°C</td>
</tr>
</tbody>
</table>

### Seabat T20-R System Specifications

<table>
<thead>
<tr>
<th></th>
<th>T20 Rx (EM7219)</th>
<th>T20 Tx (TC2181)</th>
<th>Rack-mounted Sonar Processor</th>
<th>Teledyne Type 20/30 IMU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height [mm]</td>
<td>102.0</td>
<td>86.6</td>
<td>88 (2U)</td>
<td>123</td>
</tr>
<tr>
<td>Width [mm]</td>
<td>254.0</td>
<td>93.1</td>
<td>478*</td>
<td>118</td>
</tr>
<tr>
<td>Depth [mm]</td>
<td>123.0</td>
<td>280</td>
<td>462</td>
<td>95.6</td>
</tr>
<tr>
<td>Weight [kg/air]</td>
<td>5.0</td>
<td>2.0</td>
<td>12.3-13.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Weight [kg/water]</td>
<td>4.2</td>
<td>3.4</td>
<td>N/A</td>
<td>1.6</td>
</tr>
</tbody>
</table>

### T20 Acoustic performance

- **Across-track receiver beam width**
  - 400kHz: 1° (center)
  - 200kHz: 2° (center)

- **Along-track beam width**
  - 1°
  - 2°

### T20-R Scope of supply

- Receiver EM7219
- Projector TC2181
- Rack-mounted Sonar Processor
- 10m Receiver cable
- 10m Projector cable
- Waterproof cable set
- Wet-end bracket
- Nuts and bolt for ease of installation
- 3-year warranty

### Optional extra features

- Integrated INS Type 20 or Type 30
- 25m, 50m or 100m cable
- Hydro dynamic fairing
- Dual head bracket
- RESON Sound Velocity Probes
- Teledyne PDS Survey Package
- RESON Service Level Agreements
- Motion and positioning sensors
- X-Range - improve range and reduce external noise
- Multi-Detect - multiple detections for enhanced detail over complex features and water column targets
- FlexMode – increase data density where you need it most
- Pipe Detection & Tracking – optimize detection of pipes
- Full rate dual head across the entire frequency range

### Water temperature (operational / storage)

- **Rack-mounted Sonar Processor**
  - -5°C to +45°C / -30°C to +70°C
- **Sonar-wet-end**
  - -2°C to +36°C / -30°C to +70°C

### PLD-17370-5

For relevant tolerances for dimensions above and detailed outlined drawings see Product Description.

1 Nominal values.
2 This is a depth range within which the system is normally operated, from the minimum depth to a depth value corresponding to the max. swath -50%.
3 This is the single value corresponding to the depth at which the swath is reduced to 10% of its max. value. For actual swath performance refer to Product Description.
4 With 4m GPS base line. Heave 5cm/5% whichever is greater for periods +/- 20sec.
5 An extinction coverage of +/- 20° is observed at about 530 meter water.