Teledyne RESON

SeaBat® T50-P

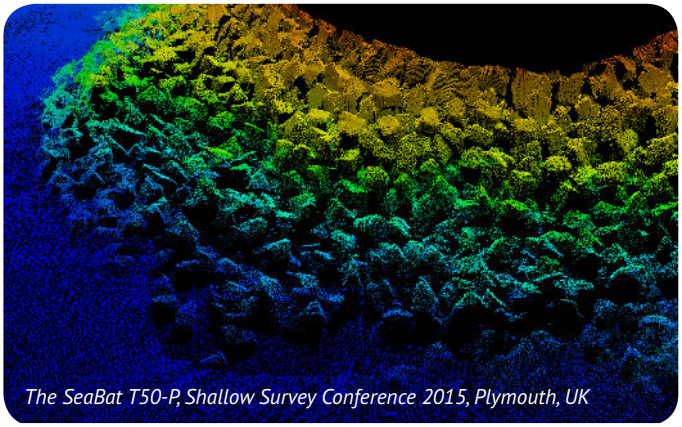
Ultra high resolution portable Multibeam Echosounder

Unprecedented clean and ultra high data quality for faster operational surveys and reduced processing time

The SeaBat T50-P is the new addition to the leading SeaBat T-series product range, engineered from the ground up to evolve with your business. Combined with the Portable Sonar Processor, the SeaBat T50-P provides unprecedented survey data, providing faster operational surveys and reduced processing time.

The SeaBat T50-P is fully frequency agile from 190 to 420 kHz, allowing for improved swath performance and reduced survey time under difficult conditions.

The SeaBat T50-P is designed for fast mobilization on smaller vessels. The Portable Sonar Processor and sonar head form a compact system, securing minimal interfacing and low space requirements.



The SeaBat T50-P, Shallow Survey Conference 2015, Plymouth, UK

SeaBat T50-P standard configuration

Portable Sonar Processor

- Reduced cable connections – fast mobilization
- Single-point, accurate, sensor time-tagging
- Water-resistant IP54 rated
- 24VDC and 100-230VAC for maximum flexibility
- 25m cable to wet-end components

T50 sonar head assembly

- 190 – 420kHz wide-band
- Robust titanium housing
- Less than 8kg in water

PRODUCT BENEFITS

- Unprecedented clean and ultra 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 difficult conditions
- Designed for smaller vessel portable use. The compact system allows for fast mobilization, mininal interfacing and low space requirements
- Significantly reduced amount of data collected with the intelligent data reduction algorithms in the compressed water column feature

TELEDYNE RESON
Everywhereyoulook™

Teledyne RESON SeaBat® T50-P

SEABAT T50-P SYSTEM SPECIFICATIONS

Input voltage	24VDC or 100-230VAC 50/60Hz
Power (typical / max)	150W / 300W
Ingress protection	Water resistant (IP54)
Transducer cable length	25m (standard) Optional: 10m, 50m or 100m
Temperature (operational / storage)	Portable 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

	Height [mm]	Width [mm]	Depth [mm]	Weight [kg/air]	Weight [kg/water]
T50 Rx (EM7218)	102.0	460.0	90.7	8.2	3.9
T50 Tx (TC2181)	86.6	93.1	280	5.4	3.4
Portable Sonar Processor	131	424	379	14	N/A

T50 Acoustic performance	**400kHz (max. frequency)**	**200kHz (min. frequency)**
Across-track receiver beam width[1]	0.5°	1°
Along-track beam width[1]	1°	2°
Number of beams	Min 10, Max 512	
Swath coverage (up to)	150° Equi Distant, 165° Equi Angle	
Typical Depth (CW[2])	0.5-200 meters	0.5-400 meters
Max Depth (CW[3])	250 meters	475 meters
Typical Depth (FM[2])	0.5-225 meters	0.5-550 meters
Max Depth (FM[3])	300 meters	575 meters
Ping rate (range dependent)	Up to 50 pings/s	
Sample rate	34 kHz or 66 kHz	
Pulse length (CW)	15 – 300µs	
Pulse length (FM)	300µs – 10ms	
Depth resolution	6 millimeters	
Depth rating (sonar head)	50 meters	

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 An extinction coverage of +/-20° is observed at about 530 meter water.

T50-P Scope of supply

- Receiver EM7218
- Projector TC2181
- Portable Sonar Processor
- 25m Receiver cable
- 25m Projector cable
- Waterproof cable set
- Wet-end bracket
- 3-year warranty

Optional extra features

- 10m, 50m or 100m cable
- Hydro dynamic fairing
- Dual head bracket
- Motion and positioning sensors
- RESON Sound Velocity Probes
- Teledyne PDS Survey Package
- RESON Service Level Agreements
- Normalized backscatter
- 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

PLD16921-4

TELEDYNE RESON
Everywhereyoulook™

Teledyne RESON
Tel. +45 4738 0022 (Europe) • Tel: +1 805 964 6260 (USA)
Email: reson@teledyne.com
www.teledynemarine.com/reson/