SeaBat® T51-ASV

High resolution multibeam echosounder for uncrewed platforms

The SeaBat® T51-ASV is built around the popular SeaBat® T51 and maintains the incredible SeaBat® data quality in a smaller form factor. Optimized power requirements ensure extended and crucial mission time on battery-powered vehicles.

With full swath width at 700-800 kHz and 0.25° receiver beamwidth, there is no compromise between resolution and efficiency.

The SeaBat® T51-ASV includes the unmatched Tracker Autopilot offering truly autonomous sonar operation without sacrificing resolution or speed.

Internal storage, integrated data acquisition software and the latest developments in integrated INS completes the survey solution.

Features

- Sonar User Interface – highly configurable to help you complete the job.
- Tracker Autopilot – unmatched truly autonomous sonar operation. Automatic optimization of sonar settings for optimal survey efficiency.
- Internal storage – log your survey results directly on the fast internal SSD.
- Data products – bathymetry, backscatter, sidescan, full or copmpressed water column. Record in parallel without compromising pingrates.

Optional extra features

- Integrated Inertial Navigation System – the very latest in INS development, fully integrated in the sonar processor
- 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 – unique to SeaBat, optimize detection of pipes



SeaBat® T51-ASV:

ASV+ Sonar Processor:

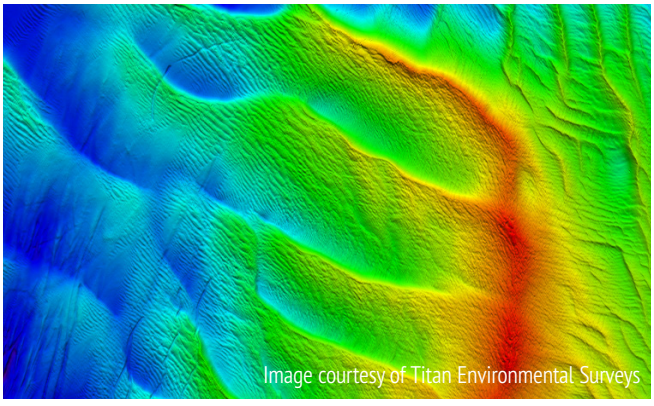
- OEM integrated on the vehicle
- Internal dry cables to bulkhead
- Easy to use Amphenol connectors

Sonar head:

- 350-440 kHz and 700-800 kHz frequency agile
- Robust titanium housing
- Customized cables to accurately match vehicle

SeaBat® T51-ASV is designed for and offered to selected manufacturers of uncrewed and autonomous platforms.

Contact your local Teledyne Marine representative for information about which selected ASV manufacturers currently offer the SeaBat® T51-ASV.



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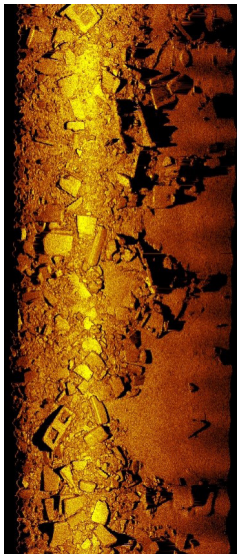


SEABAT T51-ASV SYSTEM SPECIFICATIONS

Input voltage:	24VDC or 100-230VAC 50/60Hz
Power (typical / max):	90W / 110W
Ingress protection:	IP21
Transducer cable lenght:	Optimized depending on ASV integrator
Temperature (operational):	Processor: -5°C to +45°C, Wet-end: -2°C to +36°C

	height [mm]	width [mm]	lenght [mm]	weight [kg/air]	weight [kg/water]
T51 Rx (EM7222):	87	460	102	8.7	5.3
T51 Tx (TC2186):	88	79	280	4.2	3.0
ASV sonar processor:	150	328	248 (incl. handles)	6.4	N/A

T51 Acoustic performance:	350-430 kHz	700-800 kHz
Across-track receiver beam width[1]:	0.5° (center)	0.25° (center)
Along-track beam width[1]:	1°	0.5°
Number of beams:	Min 10, Max 1024	
Swath coverage (up to):	140° Equi Distance, 170° Equi Angle	
Typical depth (CW[2]):	0.5-135 meters	0.5-135 meters
Max depth (CW[3]):	225 meters	225 meters
Typical depth (FM[2]):	0.5-145 meters	0.5-145 meters
Max depth (FM[3]):	240 meters	240 meters
Ping rate (range dependent):	Up to 50 pings/s	
Pulse length (CW):	30 – 300µs	
Pulse length (FM):	300 –2000µs	
Depth resolution:	6mm	



700-800kHz snippets

For relevant tolerances for dimensions above and detailed outlined drawings see Manual

[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 Manual.

T51-ASV BASE SCOPE OF SUPPLY

- ASV+ sonar processor
- Receiver EM7222
- Projector TC2186
- Software and shipping cases etc.
- Dry-end cables with bulkhead connectors
- Mounting bracket
- Fastening kit

OPTIONAL

- RESON SVP70 sound velocity probe
- Custom length wet-end cables
- Integrated GNSS-INS
- Fairing

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Specifications subject to change without notice.

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