

SeaBat® T-series

Subsea Integrated Dual Head

The SeaBat T-series Subsea Integrated Dual Head is engineered from the ground up to evolve with your business needs.

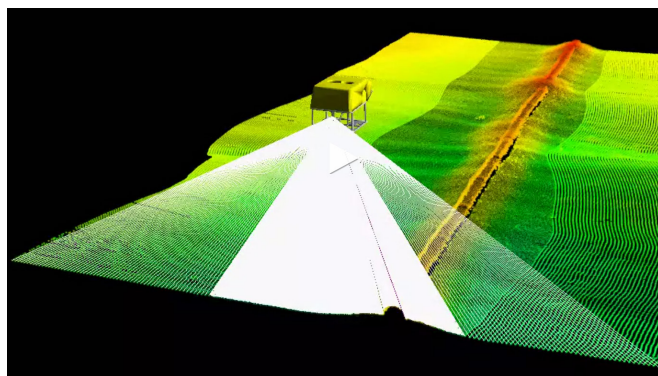
Combined with the Dual Head Subsea Sonar Processor (SSP+) the SeaBat produces unprecedented clean data from two sonar heads at the same time, reducing required processing time.

The SSP+ provides internal data storage for self-contained survey solutions on AUVs and interfacing via standard Ethernet for the typical ROV survey solution.

Multiple configurations

SeaBat Subsea Integrated Dual Head (IDH) is available both as the T20-S IDH, T50-S IDH, and T51-S IDH - or you can chose to only connect one sonar head.

Your survey requirement determines your choice of wet end - and the SSP+ auto-detects and seamlessly auto-configures itself depending on your choices.



Standard configuration

- 2* receivers – EM7218-1, EM7219-1, or EM7222-1
- 2* projectors – 200kHz, 400kHz, or 400/800 kHz.
Integrated Dual Head Subsea Sonar Processor (SSP+) housed in a 6000m titanium pressure housing with data storage (2.0 TB SSD) for approx. 600 hours.
- 36-54VDC input
- Cable sets



Product benefits

- Unprecedented clean and ultrahigh data quality for faster operational surveys and reduced processing time
- Robust titanium housing
- New compressed water column option which significantly reduces data volume while maintaining the required information
- Three-year standard warranty

Options:

- Motion and positioning sensors
- Teledyne RESON Sound Velocity Probes
- Teledyne PDS Survey Package
- Teledyne RESON Service Level Agreements
- Available without pressure housing
- ClearSingal TM anti-fouling paint applied

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 T-series won't let you down.

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ACOUSTIC PERFORMANC

Sonar operating frequency:	800kHz	400 kHz	200kHz
Across-track receiver beam width (nominal values ¹):	0.25°	0.5° (T50 and T51)/1°(T20)	1° (T50)/2° (T20)
Along -track trasmit beam width (nominal values ¹):	0.5°	1°	2°
Number of beams:	Min 10, Max 1024 (2x512)		
Swath coverage (up to):	Up to 160°/230° (Equi-distant/Equi-Angle)		
Typical depth (CW) ² :	>75 meters	0.5-150 meters	300 meters
Max depth (CW) ³ :	>110 meters	225 meters	400 meters
Typical depth (FM) ² :	>75 meters	0.5-180 meters	450 metres
Max depth (FM) ³ :	>150 meters	300 meters	575 meters
Ping rate (depth dependent):	Up to 50 pings/s	Up to 50 pings/s	Up to 50 pings/s
Pulse length:	FM: 300us-10ms	30-300µs (CW) 300µs – 20ms (FM)	
Depth resolution:	6mm		
Depth rating:	6000 meters		

For details about performance and specifications see relevant Product Description

¹ All beam widths measured at -3dB, unsteered with a sound velocity of 1480m/s.

² This is the range within which the system is normally operated. It consists of the minimum range below the sensor to a range value corresponding to max swath -50%

³ This is a single value corresponding to the range at which the swath has reduced to 10% of its maximum value.

SYSTEM SPECIFICATIONS

Input voltage:	22-60VDC
Power (approx):	T20-S IDH: Average 150W. Peak 410W / T50-S IDH: Average 200W. Peak 460W / T51: Average 200W. Peak 460W
Transducer cable length:	Standard 3m, optional 1 and 9m
Temperature:	Subsea Sonar Processor: -2°C to +36°C / -30°C to +70°C
(operational / storage):	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]
T51 Rx (EM7222-1):	87.0	446.0	102.0	8.7	5.3
T50 Rx (EM7218-1):	102.0	460.0	90.7	8.2	3.9
T20 Rx (EM7219-1):	102.0	254.0	123.0	5.01	4.2
T51 Tx 400/800kHz (TC2190):	88.0	91.0	280.0	2.2	0.7
T50 Tx 400kHz (TC2160):	77.0	62.0	285	2.75	1.7
T50 Tx 200kHz (TC2163):	115	100	280	7.5	5.0
200-400kHz projector 400m (TC2181):	86.6	93.1	280	5.4	3.4
Subsea Sonar Processor +:	538	174	n/a	24.4	12.0

For relevant tolerances for dimensions above and detailed outlined drawings see the Product Description or contact Teledyne RESON Engineering Services for more information.

PRODUCT FEATURES

- True 800kHz - No sacrifice between resolution and swath width X-Range –The use of FM-technology improves range performance and reduces the impact of external noise
- Tracker – Unique adaptive autopilot controls all you sonar settings for optimized bathymetry and backscatter
- Selectable Beam Density – you define what you need to get the job done. Minimize data storage rates to only what you require

For detailed descriptions see relevant feature description document.

OPTIONAL EXTRA FEATURES

- Multi-Detect – Multiple detections for enhanced detail over complex features and water column targets
- FlexMode with Pipe Detection and Tracking – increase data density where you need it most and optimize detection of pipes with automated steering of the FlexMode sector