

Teledyne RESON

SeaBat T-series

Subsea Integrated Dual Head



Unprecedented image quality engineered for the demanding marine environment.

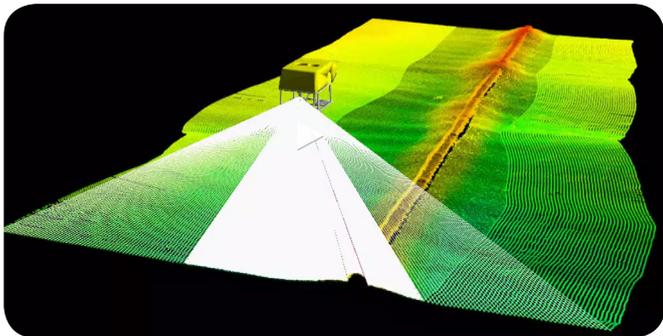
The SeaBat T-series Subsea Integrated Dual Head is the latest addition to the leading SeaBat product range engineered from the ground up to evolve with your business.

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.

SSP+ accommodates dual head or you can choose to only connect one sonar head, a configuration called SeaBat T20-S+ or SeaBat T50-S+

The plus-sign indicates you are operating a dual head capable system in single head mode.



The system provides uncompromised data quality combined with a range of powerful software features at an attractive price, with options for future feature expansions to grow with your needs.

Multiple configurations

SeaBat Subsea Integrated Dual Head (IDH) is available both as the T20-S IDH and the T50-S IDH - or you can choose 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.

A Teledyne Marine company

Standard configuration

- 2* receivers - EM7218-1 or EM7219-1
- 2* projectors - default is 400kHz 6000m depth rated projectors but several options are available
- Integrated Dual Head Subsea Sonar Processor (SSP+) housed in a 6000m titanium pressure housing
- 36-54VDC input
- Cable sets

Options:

- Wet-end brackets (customized)
- Motion and positioning sensors
- Teledyne RESON Sound Velocity Probes
- Teledyne PDS Survey Package
- Teledyne RESON Service Level Agreements
- Available without pressure housing
- Internal storage available from 0.5-8TB - enabling up to several hundred hours of data acquisition.

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.

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

T-SERIES SUBSEA INTEGRATED DUAL HEAD ACOUSTIC PERFORMANCE

Sonar operating frequency	400kHz	200kHz
Across-track receiver beam width (nominal values ¹)	0.5° (T50)/1°(T20)	1° (T50)/2° (T20)
Along-track transmit beam width (nominal values ¹)	1°	2°
Number of beams	Min 10, Max 512	
Swath coverage (up to)	Up to 160°/230° (Equi-distant/Equi-Angle)	
Typical depth (CW) ²	0.5-150 meters	300 meters
Max depth (CW) ³	225 meters	400 meters
Typical depth (FM) ²	0.5-180m	450 metres
Max depth (FM) ³	300m	575 meters
Ping rate (depth dependent)	Up to 50 pings/s	Up to 50 pings/s
Pulse length	30-300µs (CW) 300µs – 20ms (X-Range)	
Depth resolution	6mm	6mm
Depth rating	6000m	6000m

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.

T50-S IDH SYSTEM SPECIFICATIONS

Input voltage	36-54VDC
Power (approx)	T20-S IDH: Average 150W. Peak 410W / T50-S IDH: Average 200W. Peak 460W
TRANSDUCER CABLE LENGTH	3m
Temperature (operational / storage)	-5°C to +38°C, -30°C to +70°C

	height [mm]	width [mm]	depth [mm]	weight [kg/air]	weight [kg/water]
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
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

- 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