

PRELIMINARY

# SeaBat® T20-ASV

## High resolution multibeam echosounder

**Superior acoustic quality engineered for the demanding marine environment**

The SeaBat® T20-ASV is built around the renowned SeaBat® T20 and maintains the incredible SeaBat® data quality in a smaller form factor. Now, optimized power requirements ensure extended and crucial mission time on battery-powered vehicles.

The SeaBat® T20-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.



### SeaBat® T20-ASV:

ASV Sonar Processor:

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

Sonar head

- 190 – 420kHz frequency agile
- Robust titanium housing
- Customized cables to accurately match vehicle

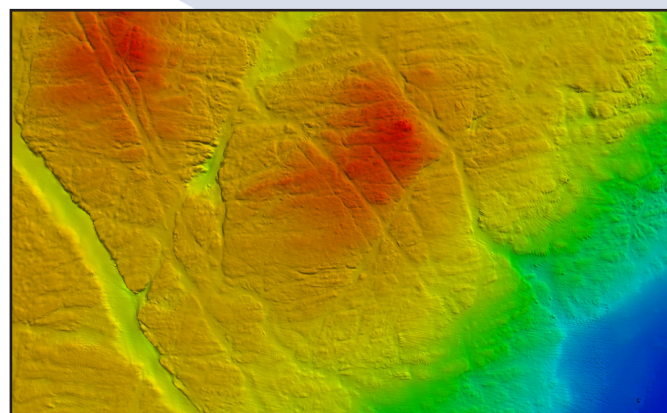
## PRODUCT FEATURES & BENEFITS

### 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 compressed water column. Everything is available!

### 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® T20-ASV is designed for and offered to selected high-end ASV manufacturers.

Contact your local Teledyne Marine representative for information about which selected ASV manufacturers currently offer the SeaBat® T20-ASV



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# SeaBat T20-ASV High resolution multibeam echosounder

## SEABAT T20-ASV SYSTEM SPECIFICATIONS

<b>Input voltage</b>	24VDC or 100-230VAC 50/60Hz
<b>Power (typical / max)</b>	90W / xxx
<b>Ingress protection</b>	IP21
<b>TRANSDUCER CABLE LENGTH</b>	Optimized depending on ASV integrator
<b>Temperature (operational)</b>	Processor: -5°C to +45°C Wet-end: -2°C to +36°C
<b>Temperature (storage)</b>	Processor/wet-end: -30°C to +70°C

	height [mm]	width [mm]	depth [mm]	weight [kg/air]	weight [kg/water]
<b>T20 Rx (EM7219)</b>	102.0	254.0	123.0	5.0	2.2
<b>T20 Tx (TC2181)</b>	86.6	93.1	280	5.4	3.4
<b>ASV Sonar Processor</b>	150	328	248 (incl. handles)	6.4	N/A

T20 Acoustic performance	400kHz (max. frequency)	200kHz (min. frequency)
<b>Across-track receiver beam width<sup>1</sup></b>	1° (center)	2° (center)
<b>Along-track beam width<sup>1</sup></b>	1°	2°
<b>Number of beams</b>	Min 10, Max 1024	
<b>Swath coverage (up to)</b>	140° Equi distance, 170° Equi Angle	
<b>Typical Depth (CW)<sup>2</sup></b>	Up to 140 meters	Up to 275 meters
<b>Max Depth (CW)<sup>2</sup></b>	200 meters	420 meters
<b>Typical Depth (FM)<sup>2</sup></b>	Up to 150 meters	Up to 310 meters
<b>Max Depth (FM)<sup>2</sup></b>	240 meters	450 meters
<b>Ping rate (range dependent)</b>	Up to 50 pings/s	
<b>Pulse length (CW)</b>	15 – 300µs	
<b>Pulse length (FM)</b>	300-2000µs	
<b>Depth resolution</b>	6mm	

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

<sup>1</sup> Nominal values

<sup>2</sup> 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%.

<sup>3</sup> 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.

<sup>4</sup> An extinction coverage of +/-20° is observed at about 530 meter water.

### T20-P SCOPE OF SUPPLY

- Receiver EM7219
- Projector cable
- Projector TC2181
- Wet-end bracket
- ASV Sonar Processor
- Integration cables
- Receiver cable

### OPTIONAL EXTRAS

- Teledyne INS Type-20
- RESON Sound Velocity Probes
- Motion and positioning sensors
- Longer cable solutions for off-



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