



# Bathyswath-2 OEM

For small vessels integration

# HIGH-DENSITY BATHYMETRY

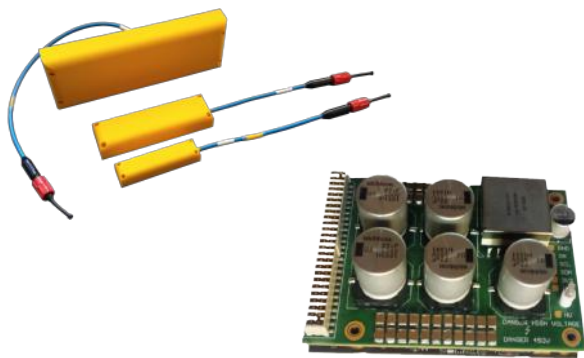


## Performance & Quality

Bathyswath-2 is the standard version of our bathymetric systems. The OEM version provides systems integrators with a package of parts for integration into small vessels and vehicles. This sonar system gives improved performance in a small, low-power package and an Ethernet interface. Bathyswath uses wide swath widths; this increases survey speeds significantly, especially in shallow water.

## Features

- Swath bathymetry (depth measurement) and sidescan (imaging) in one package,
- Suitable for autonomous or human operation,
- Ethernet interface,
- Full suite of data acquisition and processing software.



## Advantages

The main advantages of Bathyswath-2 OEM over other swath bathymetry sonar systems for small autonomous vehicles are:

- Very small electronics package,
- Small and light sonar transducers,
- Wide swaths when close to the bottom (shallow water or low flying height),
- Simple Ethernet interfacing,
- Data acquisition software for Linux or Windows, full survey control and data processing software for Windows,
- Low cost.



## 1 to 3 transducers

117, 234 or 468 kHz.

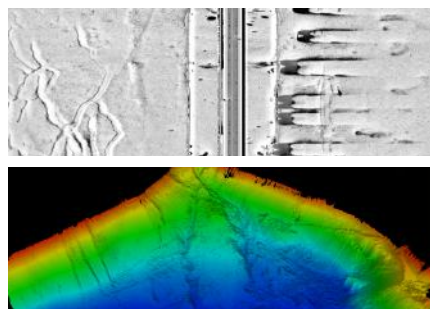
## Bathyswath-2 Transducer Electronics Module (TEM)

### Optional components

- An interface board, simplifying connection to the TEM,
- Cable sets, with standard computer & power connectors,
- Transducer extension cables,
- Transducer mounting hardware.

## Software, 3D bathymetry & sidescan data

- Fully-functional survey software (for sonar, position, sound velocity and motion data acquisition) and post-processing software (for 3D rendering and digital terrain models) included in package price..
- Bathyswath sonar is also compatible with most usual commercial software packages.
- The main Bathyswath software suite runs on Windows, and has a rich set of interfaces for operation on remote vehicles.
- For operation on small, low-powered vehicles, we provide a Linux application, which provides a cut-down set of functions for real-time operation.

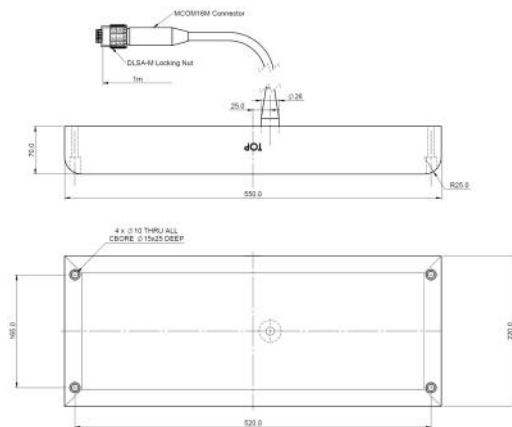


# INTERFACING

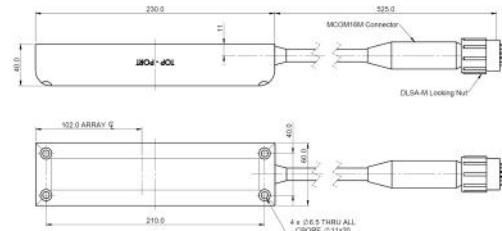
It is simple to interface Bathyswath-2 OEM to your system hardware and software:

- Mechanical CAD models & installation advice available on request.
- Off-the-shelf & custom-built mechanical mounting hardware available.
- Full documentation of electrical & logical interfaces provided.

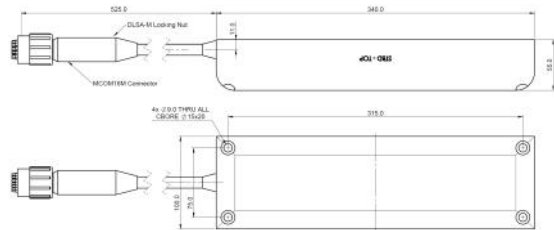
- Works with most major INS, GNSS and Sound Velocity Sensor hardware.
- Interfaces with most major bathymetric survey software package, or the Bathyswath software can be used stand-alone.



117kHz transducer



468kHz transducer



234kHz transducer

# TECHNICAL SPECIFICATIONS

## Sonar specifications

Available frequencies (kHz)*	117	234	468
Operational slant range (m)	400	200	100
Maximum slant range (m)**	600	300	150
Minimum depth (m)	0.3	0.2	0.1
Beam width, azimuth (2-way)	0.85°	0.55°	0.55°
Transducer dimensions (mm)	200 x 550 x 70	100 x 340 x 55	60 x 230 x 40
Transducer weight, air/water (kg)	9 / 1.4	5 / 0.8	1 / 0.1
Maximum transducer cable length (m)	50	50	50
Transducer electronics module	100 x 70 x 36 mm, 190g		
Power requirement	20W @ 12V		
Other interfaces	PPS timing in, transmit sync in & out		
Transducer pressure rating	2000m standard, 4000m & 6000m on request		

\* 1 transducer = 1 frequency

\*\* Refer to our Bathyswath technical information document (pdf) available on [www.iter-systems.com](http://www.iter-systems.com).

"The quality of the data collected during the trial was high both in terms of coverage and resolution."  
- Neil Crossouard - HR Wallingford survey specialist

## FROM A TO Z



Sonar systems engineering.



Training on client's site or on lake in front of our premises.



Software development for our own products or for new interfaces with customers systems.



Remote technical support.

## A WIDE RANGE OF APPLICATIONS



Marine services



Research



Environment



Natural resources



Archeology



Military REA

### Bathyswath a brand of the company ITER Systems

ITER Systems is one of the world's most experienced team of developers of interferometric sonars. Its products are direct descendants of the world's first commercially available interferometric swath sonar system, developed into SWATHplus, which renamed Bathyswath in 2013. Bathyswath-2 was released in 2015, and Bathyswath-3 in 2019 gives yet another significant advance in performance and usability.

ITER Systems provides innovation, quality product at an affordable price, for the international market with high quality technical support. A team of specialized engineers are located in France and in England to answer all your needs.

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