



Shallow survey efficiency & quality
for commercial, scientific & military needs

BATHYSWATH 2



*Deck Unit on the left
with 468 kHz transducers*

*Subsea Unit on the right
with 234 kHz transducers*

Bathyswath-2-UW & transit case below

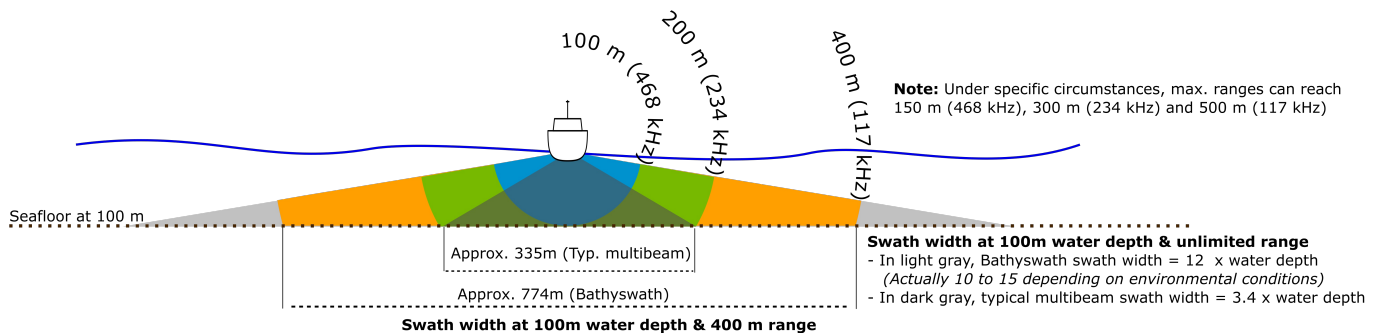


High-density bathymetry & sidescan seafloor imagery data across a very wide swath width

Bathyswath 2 is the latest generation of our bathymetric systems. It has a completely new electronics platform and transducers, giving improved performance in a smaller, lower power package, with an Ethernet interface. It can be used at any frequency from 100 to 500 kHz. The whole system has been optimised to reduce size & weight. ITER Systems continues to support Bathyswath 1 and SWATHplus systems.

PRODUCTIVITY

Bathyswath uses wide swath widths; this increases survey speeds significantly, especially in shallow water. It has three frequencies: 117, 234 or 468 kHz with respectively 400, 200 and 100m maximum ranges. The US Geological Survey (USGS) said: "Operating swath of the bathymetric system ranged from 15 to 20 times water depth in in depths less than 15m".



Package Options

	Bathyswath-2-STD (Standard)	Bathyswath-2-UW (Underwater)
Transducers	1 to 3	1 or 2
Transducer extension cables	1 to 3	Option
Transducer mounting bracket	Yes	Yes
Transducer Interface Unit (TIU) <ul style="list-style-type: none">• IP66 Deck Unit (DU) or• Subsea Unit (SU) - 100 or 2000m depth rated (option)	Yes	No
Ekinox INS or IMU	No	Option
MiniSVS Sound Velocity Sensor (SVS)	No	Option
Umbilical cable	Option	Yes
Spider cable	Yes	Yes
connections to computer & power	Yes	Yes
Rugged transit cases	Yes	Yes
Integrated PicoMBES gap-filler	Option	Option
SWATH software	Yes	Yes
Data acquisition, processing & 3D		

You will not find better price for the same quality

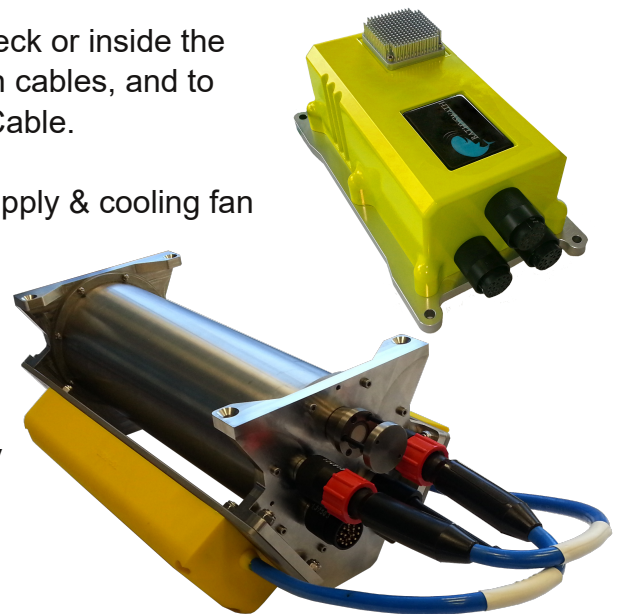
DECK UNIT & SUBSEA UNIT

Deck Unit (DU)

- Used in Bathyswath-2-STD package. For use on deck or inside the cabin, connected to the transducers, using extension cables, and to the computer & ancillary equipment using a Spider Cable.
- Watertight to IP66.
- Contains Transducer Electronics Module, power supply & cooling fan

Subsea Unit (SU)

- Used in Bathyswath-2-UW package. For use at the end of a pole or on underwater vehicles
- Bottle contains Transducer Electronics Module, power supply, cooling fan & Ethernet switch, & optionally Ekinox INS/IMU & miniSVS sound velocity sensor.
- Transducers fixed to each side.



ANCILLARY DEVICES (optional)

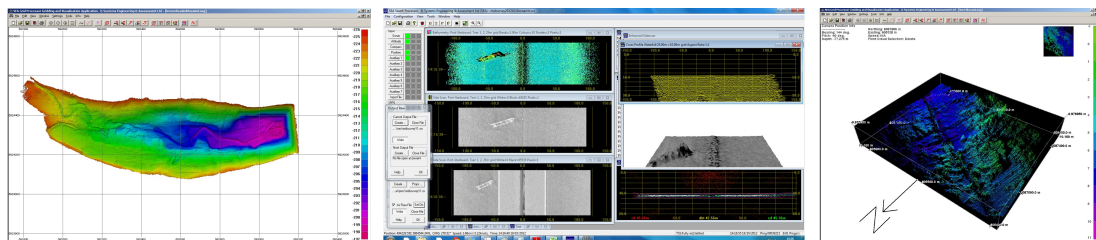
Bathyswath is compatible with most GNSS, INS & SVS devices; the following are provided in our integrated Bathyswath-2-UW package:

Ekinox-E INS or Ekinox-A IMU
(www.sbg-systems.com)
MEMS technology, ITAR free
Pitch & roll accuracy <0.05°

miniSVS Sound Velocity Sensor
(www.valeport.com)
Resolution 0.001 m/s

SOFTWARE

Bathyswath data acquisition & processing software is included in system price, and you can also interface to 3rd party software systems such as QINSy, Hypack, SonarWiz, CARIS, EIVA, Starfix & PDS2000.



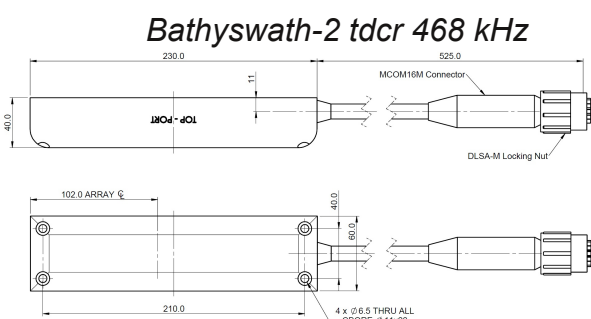
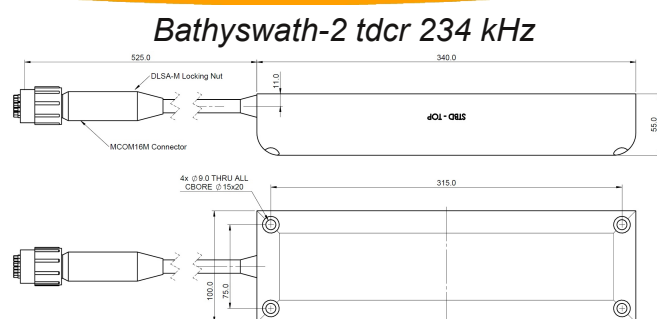
MOUNTS (optional)

Transducer mounting V-brackets are included in Bathyswath Packages. In addition, two complete mounting kits are proposed as options: a **Universal Mounting Kit** to allow deployment on vessel of opportunity & a **Side Mounting Kit** for installation on RIBs.

TECHNICAL SPECIFICATIONS

	117 kHz	234 kHz	468 kHz
Operational slant range (m)	400	200	100
Maximum slant range (m)	600	300	150
Minimum depth (m)	0.3	0.2	0.1
Measurement resolution limit (mm)	12	6	3
Resolution detection limit (mm)	6	3	1.5
Across track resolution (cm)	5	2	1
Azimuth beam width (2-way)	0.85°	0.55°	0.55°
Transmit pulse length (µs)	17 to 8500	8.5 to 4300	4.3 to 2100
Max. cable length (m)	50	50	50
Transducer dimensions (mm)	200 x 550 x 70	100 x 340 x 55	60 x 230 x 40
Transducer weight, air/water (kg)	8.6 / 1.3	5 / 0.8	1 / 0.1
Deck Unit (DU) dimensions	256 x 155 x 145 mm, 4.2 kg		
SU dimen. with 234 kHz transducers	192 x 290 x 660 mm, 26.6 kg		
SU dimensions without transducers	192 x 210 x 510 mm, 21.8 kg		

For more technical information on interferometric technology and Bathyswath systems, download our technical information document from: bathyswath.com/publications, "Bathyswath Technical Information"



ITER Systems & Bathyswath

ITER Systems is 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 is a completely new design, with improved performance and usability.



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**YOUR LOCAL BATHYSWATH
REPRESENTATIVE:**