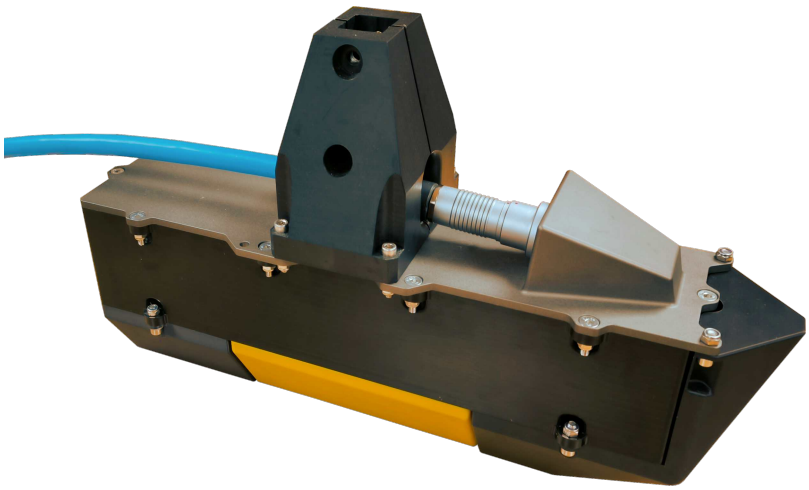
BATHYSWATH

ITER SYSTEMS



B3S-B "all-in-one" system

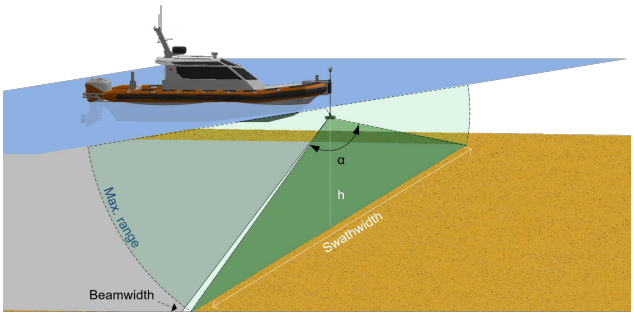
(Embedded SVS, GNSS board, INS and sonar electronics)

B3S-A "sonar only" system

Bathyswath-3 SIGMA (B3S)

The innovative Bathyswath-3 technology embedded in SIGMA subsea unit

WIDE SWATH BATHYMETRY

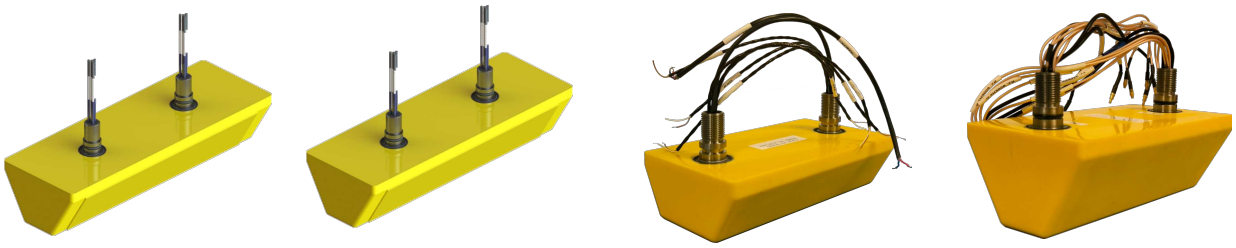


Max. range
> 200 m (250 kHz) and >70 m (450 kHz)

Swath angle (α)
- 250 kHz : Upto 175° in 15m waterdepth (h), 160° in 40m and 130° in 90m.
- 450 kHz : Upto 175° in 5m waterdepth (h), 160° in 15m and 130° in 30m.

Swathwidth vs waterdepth (h)
- 250 kHz: Upto 30 x waterdepth in 15m, 10 times in 40m and 4 in 90m.
- 450 kHz: Upto 30 x waterdepth in 5m, 10 times in 15m and 4 in 30m.

4 POD TRANSDUCERS POSSIBILITIES



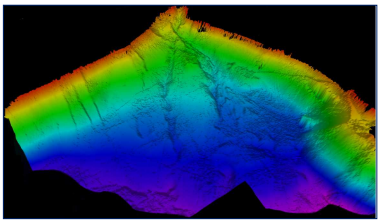
250 kHz
- Single frequency
- 2.0 kg, 316x110x68mm
- Permanent stock

250 - 850 kHz
- Dual frequency
- 2.1 kg, 316x110x68mm
- Permanent stock

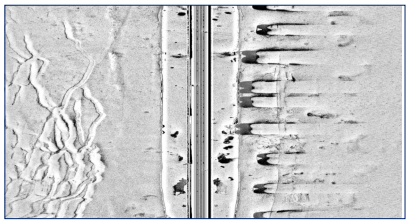
450 kHz
- Single frequency
- 1.3kg, 200x110x50mm
- Permanent stock

450 - 1200 kHz
- Dual frequency
- 1.5kg, 200x110x70mm
- On demand only

2 TYPES OF DATA



3D Bathymetric data (xyz)

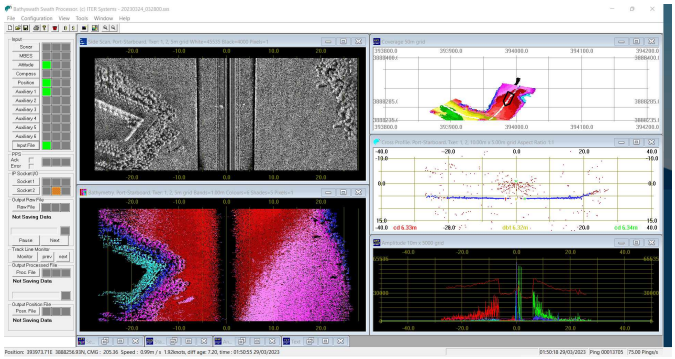


Sidescan images

SOFTWARE INCLUDED IN THE PACKAGE

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),
- Bathyswath sonar is also compatible with most usual commercial software packages.



EMBEDDED OPTIONAL DEVICES(1)

Combined GNSS/INS positioning & motion solutions

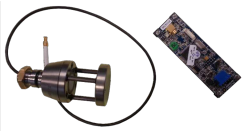
Quanta Plus
(SBG Systems)
- Septentrio GNSS (w/ PPP)
- Advanced INS

Certus EVO
(Advanced Navigation)
- Trimble BD992 GNSS
- Advanced INS

BD 992-INS(2)
(Trimble)
- Trimble BD992 GNSS
- Basic INS

Quanta Micro(2)
(SBG Systems)
- U-blox GNSS w/o PPP
- Basic INS

Sound Velocity sensor



MiniSVS(3)
(Valeport)

(1) : Click on the image (pdf brochure) for a direct link to the technical specifications
(2) : Not adapted for surveys in rough waters
(3) : A SVS is advised for improving survey quality but is not mandatory unlike the Sound Velocity Profiler (SVP)

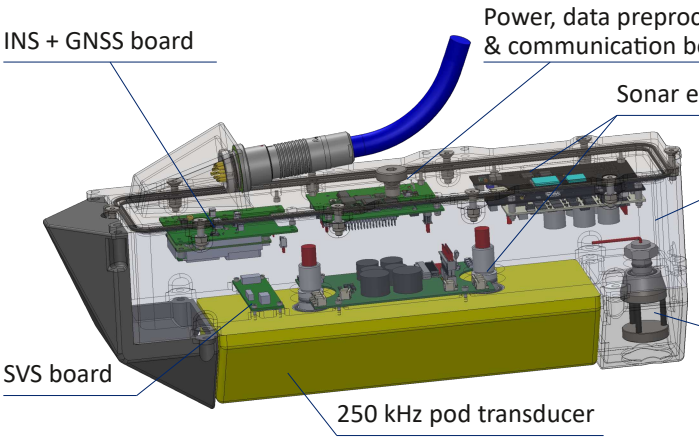
TECHNICAL SPECIFICATIONS

	Single frequency(1)	Single frequency	Dual frequency(1)	Dual frequency
Frequencies	**250 kHz**	**450 kHz**	**250-850 kHz**	**450-1200 kHz**
Operational slant range (m)	> 200	> 70	>200(250 kHz) > 50(850 kHz)	>125(450 kHz)> 20(1200 kHz)
Horizontal beam width (two-way)	0.55°	0.55°	0.55°	0.55°
Spatial resolution limit (mm)	2.9	1.5	1.0 @ 850 kHz	0.7 @ 1200 kHz

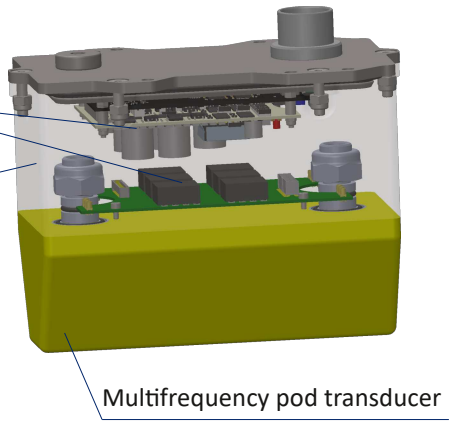
(1) : Can be installed on B3S-B housings only

- B3S-B overall dimensions (incl. front fairing) : 525 (L) x 138 (W) x 224 (H) mm - Weight is about **7 kg** only in the air depending on transducers.
- B3S-A overall dimensions : 525 (L) x 138 (W) x 224 (H) mm
- Housing pressure depth rating : 10 m
- Wideband (chirp) sonar technology
- Low power consumption (20 W)

PARTS BREAKDOWN



B3S-B "all-in-one" system



B3S-A "sonar only" system

OTHER PACKAGE OPTIONS

Bathyswath-3 OEM
Sonar electronics and transducers as parts for integration inside clients' systems or vehicles (i.e. AUVs, USVs, etc.).

FROM A TO Z

Sonar systems engineering.

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

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

Remote technical support.

MOST OF OUR CUSTOMERS ARE

Marine services

Research

Natural resources

Archeology

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.
ITER Systems provides innovation and quality products at an affordable price.

ITER Systems
3 rue du lac du Mont Cenis
Savoie Technolac
73290 La Motte-Servolex, France
Phone : + 33 972 457 330
sales@iter-systems.com
www.iter-systems.com

ITER SYSTEMS

BATHYSWATH