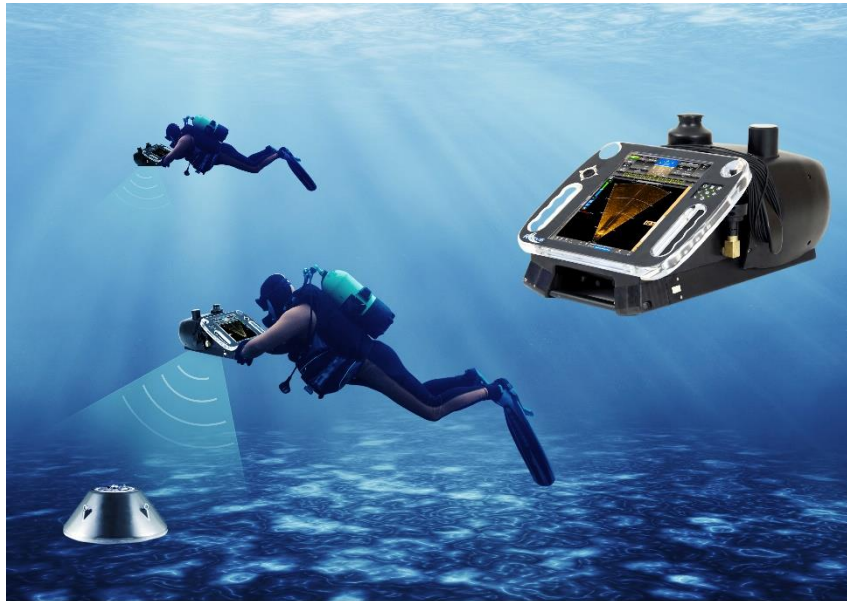


SONAR AND NAVIGATION SYSTEM FOR DIVERS



Description

SONADIVE assists divers during recognition or object detection missions.

The embedded navigation system relies on the several sensors: heading, immersion, DVL (Doppler) and a GPS for surface initialization.

Divers have possibility to send message and to share contacts via UW modem. An optional communication module allows underwater repositioning and transmission of data to the surface.

Sonar and navigation data are fully recorded allowing mission replay, data analysis and export.

With 6 hours of battery life, the autonomy can be extended by an additional set of battery pack.

The products are subject to export control restriction.

Functionalities

- Portable Sonar for divers
- Integrated navigation unit (DVL)
- High resolution acoustic camera
- Low light video camera
- Floating removable GPS antenna
- Integrated chart with georeferenced POI
- Full navigation and sonar data logging
- Post mission bathymetry export
- Configuration and replay on PC or tablet

Options

- Magnetic fluxgate sensor
- Surface to underwater communication module
- Long baseline repositioning
- Tactical situation and contact sharing
- Emergency Pinger localization

Characteristics

Powered by **SDA**

- **BlueView 2D Multi-Beam Sonar:** 450 kHz – 900/2250 kHz
- **Video camera:** Divecam-720M Miniature Monochrome CCD
- **Acoustic communication:** 20 to 30 kHz – Discrete mode
- **Large screen :** 12 inches, visible in all water conditions
- **Gradiometer :** High performance fluxgate
- **Navigation:** GPS – INS – DVL – Pressure sensor

- **Sizes:** H 27 cm – W 37.2 cm – L: 56 cm.
- **Weight:** <20 kg in air – Neutral buoyancy
- **Depth rating :** 60 meters
- **Autonomy :** 6 hours
- **No external cables**



• DETECTION

SONADIVE is fitted with BlueView 2D Multi-Beam Sonar acoustic cameras.

Two models are available with the following equipment:

- BLUEVIEW M450/45
- BLUEVIEW M 900/2250

The cameras are interchangeable from one model to another.



• GRADIOMETER

A fluxgate probe positioned vertically on the side of the system can be connected and disconnected during the mission thanks to its wet mate connector.



• ADVANCED NAVIGATION CAPABILITIES

- DVL: 1200 KHz
- Floating GPS Antenna with 3 types of cable
- INS : High performance
- High accuracy pressure sensor



• BATTERY

- Li-Ion pair of rack of wet pluggable batteries
- More than 6 hours autonomy. Rechargeable units

• COMMUNICATION

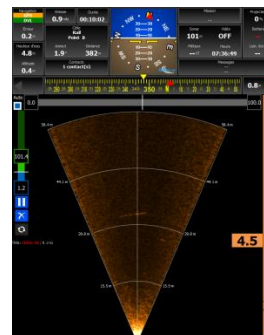
An integrated modem offers underwater acoustic communication in range higher than 2000 meters.

- Communication frequency: 20 to 30kHz – Discrete mode
- Instantaneous power: 170dBμPa peak

• SCREENSHOTS EXAMPLES



Surface communication module



Sonar picture



Tactical picture

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RTsys activities

- Marine acoustics
- Embedded electronics
- Marine robotics
- Systems integration
- Customized R&D

