

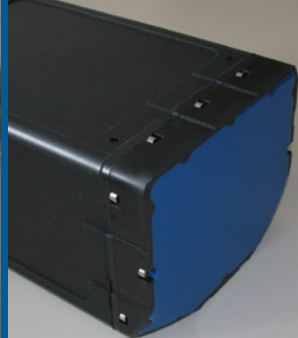


Fraunhofer
IBMT

FRAUNHOFER-INSTITUTE FOR
BIOMEDICAL ENGINEERING IBMT

SONAR





Sonar constitutes a technique for the localization and analysis of structures under water with the aid of ultrasound signals. Analogously with radar technology in air, ultrasound represents the most efficient technology for the fulfilment of a wide range of measurement tasks under water. Here, the applications range from simple depth and distance measurements, through cartography of the seabed, right up to multidimensional visualization of the environment in real time. Sonar is also a tried and tested method for the measurement of layer thicknesses in sediment and for the recognition and classification of objects.

The business area Sonar offers its customers comprehensive access to the widest possible range in the field of sonar applications. In recent years, Fraunhofer IBMT has demonstrated its capabilities in projects for industrial customers as well as publicly funded projects with the development of a wide range of sonar systems for various applications.

Fields of application

- Underwater surface scanning
- High-resolution real-time volumetric imaging
- Depth and distance measurement
- Sediment layer thickness measurement
- Doppler-based velocity measurement



Products and services

- Customized sonar systems from idea to product
- 2D/3D/4D sonar imaging systems
- OEM multi-channel electronics with customer specific signal processing
- Measurement and expedition cruises with the research vessel "Joseph von Fraunhofer"
- Consultation and feasibility studies for sonar systems and components
- Function and leakage tests under adjustable pressure conditions up to 600 bar

Competences

- Simulation and advance development
- Software development and system integration
- Electronics engineering
- Transducer engineering
- Manufacturing technology (ISO 9001)

**FRAUNHOFER IBMT: YOUR PARTNER FOR
NEW FIELDS IN UNDERWATER SOUND**

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