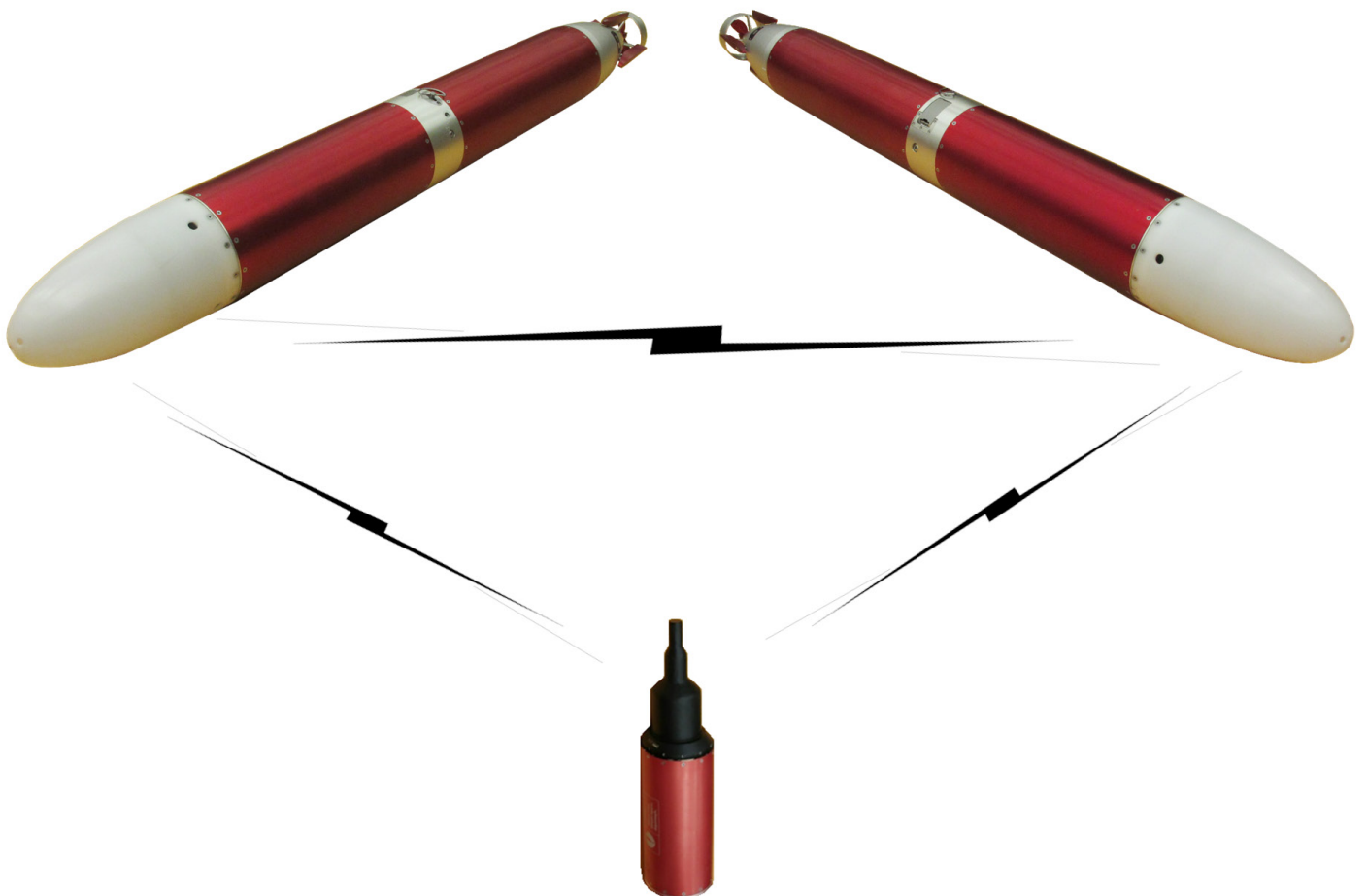


# AKUSTIKA™

UNDERWATER ACOUSTIC AD-HOC  
NETWORK





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## UNDERWATER ACOUSTIC AD-HOC NETWORK

AKUSTIKA, developed with support of TUBITAK TEYDEB 1511 Program, is an underwater acoustic communication network for underwater/surface platforms and mobile underwater vehicles. System components are; mobile vehicles with underwater network capability and acoustic modems that can be integrated to various underwater and surface platforms or can be used as stand-alone.

One of the most important application of AKUSTIKA is the New Generation Torpedo Countermeasure Systems. Since acoustic decoys/jammers have communication with each other and with launching platform, they can operate as a group in a cooperative manner, can be informed about changing threat situations and can change their route and operation mode according to new tactical situations. Thus, it is possible to carry out a more effective countermeasure tactic by using less number of decoys/jammers.

Besides the Torpedo Countermeasure Systems, the underwater communication network established with AKUSTIKA can be utilized for various underwater application areas such as:

- Torpedoes
- Mine Avoidance/Mine Hunting
- Anti-Submarine Warfare
- Underwater IFF
- Acoustic Signature Gathering
- Shore, Harbor and Facility Security

AKUSTIKA is designed to operate at different frequency bands to satisfy the range, data speed and data size requirements depending on the application area.

### System Properties

- Modular design to be used in various frequency bands for different requirements
- More than 15.6kbps data transfer in 10kHz – 30kHz band over 2000m distance
- Communication range of more than 2000m between two nodes
- Modulation Types: OFDM, BPSK/QPSK
- Point-to-Point communication capability
- Ad-Hoc Network
- Automatic connection to network

