NAVAL

R-UK ADVANCED SYSTEMS

BROADLINK™

Enabling Wideband Underwater Communications

Delivering Critical Underwater Communications Capabilities

Today's underwater operations – including ASW, Mine Countermeasures, Seabed Warfare, Hydrographic, and Special Forces missions – require reliable wideband acoustic communications that enable the transmission of a range of data types such as images, sonar, and video.

RAFAEL's BROADLINK modem answers this need, enabling the transmission of critical wideband data al long ranges between underwater systems such as UUVs, submarines, fixed infrastructure, and devices used by Special Forces divers

Benefits

- Long range underwater communication solution
- Operates in a variety of environments including open sea, shallow water, and shipping lanes
- Can be carried by divers or installed on crewed and uncrewed naval vessels
- Uses simple TCP/IP protocol over Ethernet
- Low power consumption
- Can be used as a standalone solution or as part of a network

Meeting Underwater Challenges with Advanced Technologies

BROADLINK utilises today's most sophisticated communications technologies to thwart increasingly complex underwater threats.

The BROADLINK modem enables the establishment of an underwater acoustic point-to-point data link. Operating at a range of over 10km, the modem supports telemetry, images, slow video, sonar snippets, navigation and other digital data via a TCP/ IP protocol over Ethernet.

BROADLINK enables underwater forces to communicate and share data at much higher rates than previously achieved, and can be switched between high rate communication (up to 23.6 kbps) and spread spectrum LPI communication (100 bps). It also compensates Doppler shifts caused by motions up to 5 m/s.

The system can be run either by an operator or automatically. Its small footprint enables integration on a wide range of platforms. Typically used with commercial transducers, BROADLINK can be adapted for submarines using certain types of transducers or hydrophones.

Main Capabilities

- Enables establishment of underwater acoustic point-to-point data links
- Enables wideband transmission and reception of a wide range of data types including images, sonar snippets, and slow video
- Can be switched between high-rate communication and spread spectrum LPI communication
- Compensates Doppler shifts caused by sensor motions up to 5 m/s
- Operates at a range of over 10km

Technical Specifications

Size	Can be adjusted to meet client needs.
Weight	< 1 kg
Range	Low freq. up to 20 km High freq. up to 3 km
Power Consumption	<18W (nominal), 45W (transmission)
Modem Frequency	Low freq. – 4-10 kHz High freq. – 15-35 kHz

Applications

Special Forces Command

UUV'

Special Forces

Diver

Advanced Systems Ltd.

LAND & NAVAL SYSTEMS DIVISION

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