



Patents Pending

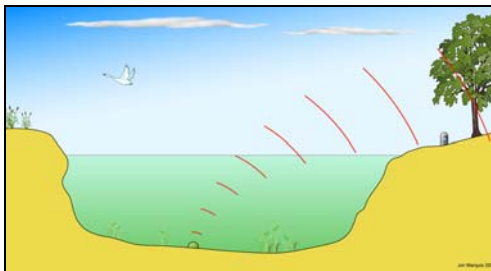


**World's First Production
Standard Underwater RF Modem**

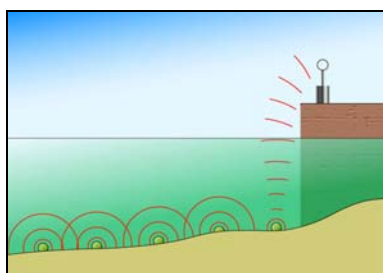
Underwater Radio Modem - S1510



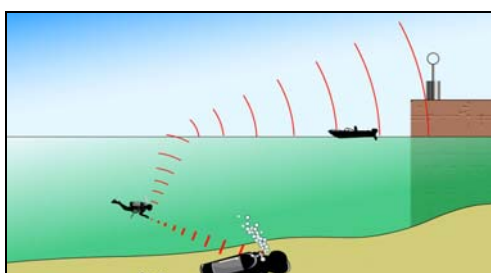
AUV Control & Comms



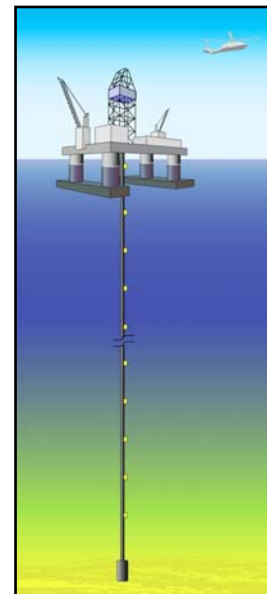
Environmental Monitoring



Wireless Networks



Diver Communications



Remote Control

The S1510 is a range of radio modems which offers alternative wireless, communication systems where optical and acoustic solutions are problematic e.g. in turbid, congested or noisy conditions. The S1510 range has been designed to interface with sensor and control units to support a number of diverse applications within Defence, Homeland Security, Oil & Gas industry and for Environmental & Oceanographic monitoring.

Performance depends on a number of factors including bandwidth, data rate, power and antenna characteristics. S1510 readily tailored to application.

Features	Benefits
Transceiver	⇒ Two way communications ⇒ Can be interfaced to text entry terminal for comms link
Immunity to acoustic noise	⇒ Operates in littoral or near offshore facilities/vessels
Immunity to particulates	⇒ Operates in turbid water
Immunity to thermal layers	⇒ High tolerance of water conditions
Immunity to multipathing effects	⇒ Operates in shallow water or congested environments e.g. harbours, estuaries and waterways
No effect on acoustic systems	⇒ No interference with acoustic sensors, sonars or aquatic life
Fast propagation	⇒ Low command latency - real time control
Crosses water/air interface	⇒ Removes need for cable to shore ⇒ Removes need for repeater buoy ⇒ Unobtrusive, no navigation hazard
Penetrates ice	⇒ All year operation
Simple plug and play	⇒ No user programming required



S1510 Underwater Modem on left – above surface Modem on right

Technical Specification

Performance

- Data rate 0-16 kbits/sec
- Half or full duplex
- Supporting PC software
- Multiplexing – multiple units addressed by unique codes

Antenna

- Magnetic coupled loop
- Options available for extended range

Data

- RS 232 data interface
- Analogue interface for sensors without a microprocessor

Power Requirements

Application dependent e.g. 40 bits/sec modem powered from 2 Lithium D-cells

- 2 years operation in listening mode
- 60 hours transmit
- Low power standby mode with wakeup timer

Physical (typical)

Modem housing - 315mm x 315 mm
Antenna – application dependent

Environmental

- 4,000m depth
- Temp. operating -10 to + 35°C

Contacts

Tritech International Ltd

Peregrine Road
Westhill Business Park
Aberdeen AB32 6JL
United Kingdom
Attn of: Richard Marsh

Tel: +44 (0) 1224 744111
Fax: +44 (0) 1224 741771
Web: www.tritech.co.uk

Wireless Fibre Systems Ltd

Adaptive House
Quarrywood Court
Livingston EH54 6AX
United Kingdom
Attn. of: Ron Marquis

Tel: +44 (0)1506 407865
Fax: +44 (0)870 990 5703
Web: www.wirelessfibre.co.uk