

Undersea Wireless Communications

**High Data Rate, Low Power,
Ultrasonic MODEM**



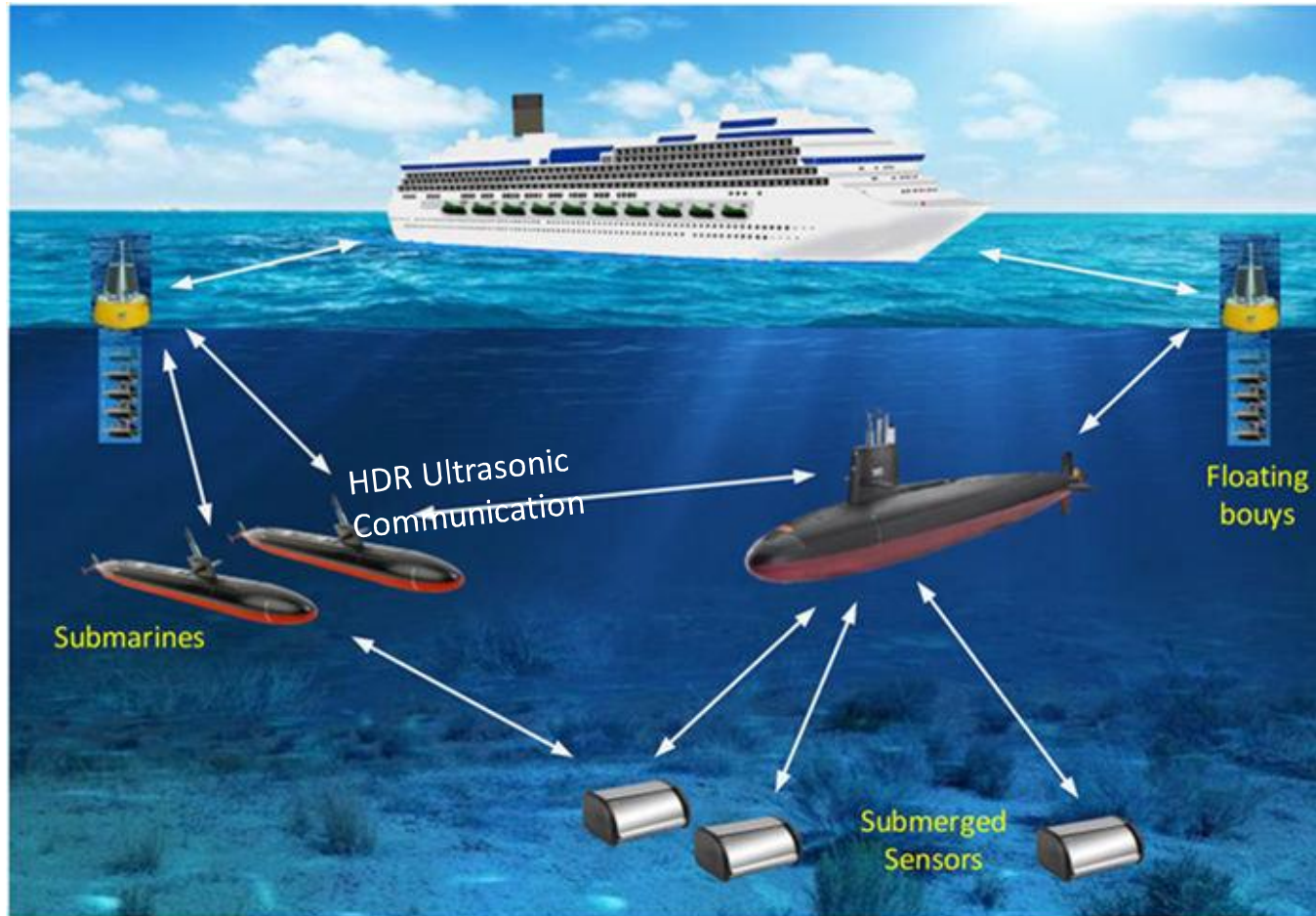
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Teaser

1 slide:

*No wire tethered underwater vehicles
Wireless Network for Sensor Tags on Ocean Floor
New Adventure for Ocean Floor*

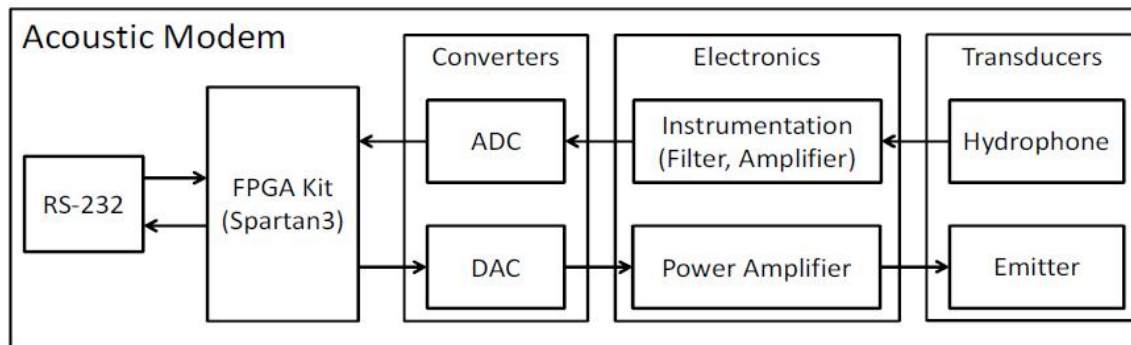
Underwater High Data Rate(HDR) Ultrasonic Communications



High Data Rate Ultrasonic Communication, K Jeon(kchun@yiruri.com)

Proposal Introduction

*Develop High Data Rate, Low Power,
Ultrasonic Comm MODEM Technology*

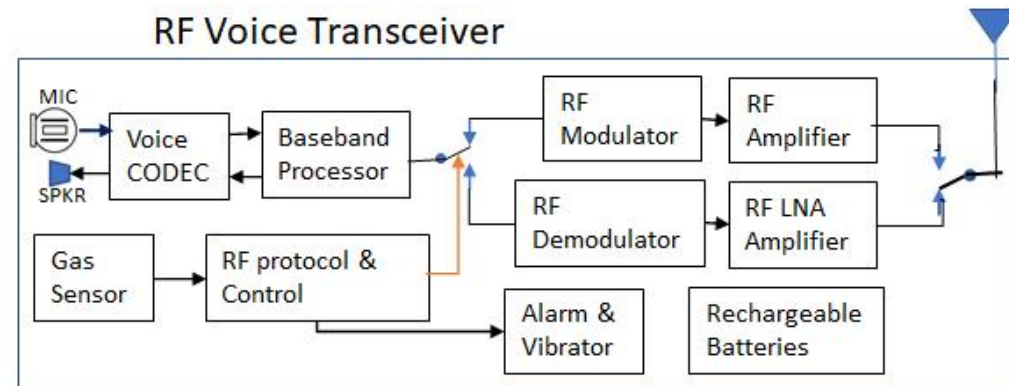
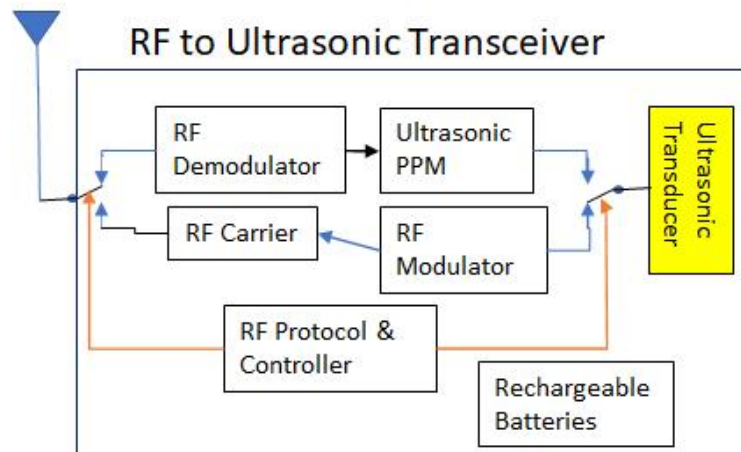


Proposal

Introduction

Develop RF Comm based Ultrasonic Comm MODEM Technology

Develop Metal Block Container Ultrasonic Transceiver with Air Quality Monitoring



Proposal Introduction

We will achieve the following:

- 1. Easy and Safe Operation of Ocean Exploration with Wireless Communications*
- 2. Untethered Operation of Undersea vehicles*
- 3. Monitoring and Control of Undersea Valuable Resources*
- 4. Develop High Data Rate, Low Power Digital Ultrasonic Comm Modulation Demodulation and Multiple Access Technologies*

Potential Work Packages

We see the following activities:

- 1. Underwater channel characterization, statistical modeling and estimation*
- 2. MIMO and Multi-Carrier systems in underwater communications*
- 3. Transceiver design: Modulation, coding and detection technique*
- 4. Underwater wireless networking protocols and cross-layer design*
- 5. High Data Rate Underwater Wireless Communication Test Bed Construction*

Partners

1 slide:

Existing consortium, involved countries.

Expertise, profiles and types of partners you are looking for.

*Currently No Underwater wireless Communication Standard
Organization or Consortium exist.*

*Need to initiate the standard organization from the beginning of
the development.*

ICT for Undersea

Contact Info



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For more information and for interest to participate please contact:

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