

Performance Evaluation of a Wireless 433 MHz Link in Underwater-Freshwater Communication

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Abstract : This document presents experimental results obtained in a realistic environment using an underwater LoRa link. It aims to analyze the behavior of electromagnetic waves underwater and determine this communication capability. With this it has been tried to empirically evaluate the results obtained in the mathematical model using a commercial device with low cost and low consumption that works at frequency 433Mhz. The mathematical results obtained for wireless communication at 433Mhz underwater indicate that a communication of up to 7.5 m is possible, however experimentally 8 m has been achieved.

Keywords : 433Mhz link, internet of things, LoRa link, underwater communication

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