



## AURORA – WATER SONAR

1101288 AURORA WSD LoRa IP67B1 SONAR WATER LEVEL REV D OR LOWER  
 1101289 AURORA WSD NB IP67B1 SONAR WATER LEVEL REV D OR LOWER

A wireless IoT  
 sensor system

### ABOUT

The Water Sonar contains a water calibrated ultrasonic transmitter and receiver, allowing you to measure distance to snow located in front of it. The sensor is not affected by color or other visual characteristics of the detected object. Ultrasonic sensors use high frequency sound to detect and localize objects in a variety of environments.

#### Connectivity

The module can be configured with LoRa or NarrowBand IoT.

#### Mounting

Due to the high gain of the sensor, the first recommendation is to mount the sensor far enough away from any supporting masts or towers. For the mast that is 5 meters high (or higher) the sensor should be mounted at least 100 cm away from the mast. For a mast that is 2.5 meter high (or lower) the sensor should be at least 75 cm away from the mast. This corresponds to a mounting clearance angle of greater or equals to 11.3 degrees.



### GENERAL SPECIFICATION

PARAMETER	Min	Max
Storage temperature <sup>(1)</sup>	-20° C	40° C
Operating Temperature <sup>(2)</sup>	-40° C	60° C
Supply Voltage	2.2 V	3.6 V
Range	Up to 5 meters	
Resolution	1 mm	
Recommend Min. Range <sup>(3)</sup>	75 cm	
IP Rating	IP67	



Specifications and information herein are subject to change without notice.

- (1) Storage temperature with lithium battery.
- (2) The maximum operating temperature can be lower depending on radio mainboard to be equipped with this module.
- (3) Because of acoustic effects in the near field, objects between 30-cm and 75-cm may experience acoustic phase cancellation of the returning wave, resulting in inaccuracies of up to 5-mm. These effects become less prevalent as the target distance increases, and have not been observed past 75-cm. For this reason, users that require the highest accuracy are encouraged to mount the sensor farther than 75-cm away from objects.