



# HydroTerra

Environmental Monitoring Specialists

## Yabby 2

### Surface Water Low Latency Satellite IoT Sensor Hub

Yabby 2 is a powerful yet compact multi-communications enabled IoT device designed specifically for remote environmental monitoring. Connect to any standard environmental sensor and transmit data from anywhere via Satellite. Multiple option for mounting including bracket and floating.





# Overview

The versatile device allows connection to all standard sensor types offering the ability to use across a wide variety of monitoring applications. The ease of use means that field installations can be completed in a fraction of the time of other systems offering significant cost savings and minimising risk by reducing time in the field.



Smart multi communications transmitter in one compact unit, making remote monitoring easy. Connect to any environmental monitoring sensor for transmission to DataStream.



Optional rechargeable internal pack OR long-life non-rechargeable internal battery providing flexibility for various monitoring scenarios including long-life deployments on solar or external battery pack or mid-length deployments powered by non-rechargeable lithium D-Cell.



Easily change settings, log time, transmission rate, alarms with OTA firmware updates onsite over the Iridium Satellite Network.



Simply activate Bluetooth by pressing the button and connect via our free mobile Android and Apple mobile app for all your device configuration requirements



Compact form factor 45mm x55mm x 120mm



**DataStream™**

by **HydroTerra**



Environment • Water • Geotechnical • Data

*Powered by EWS, through our  
official partnership*



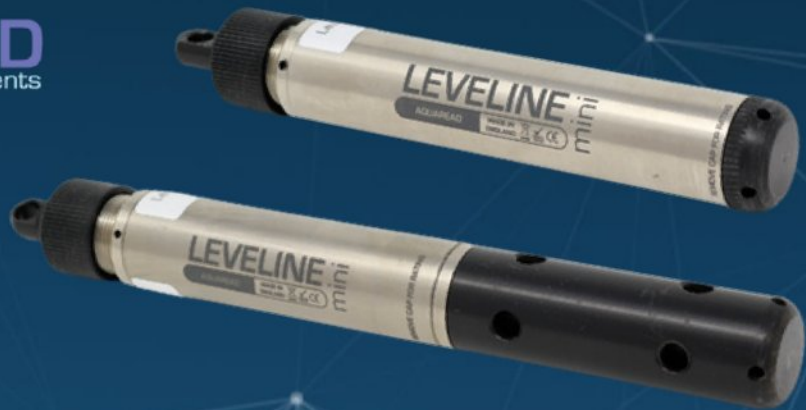
# Yabby 2

## Integrated Sensors Examples

**Seametrics**



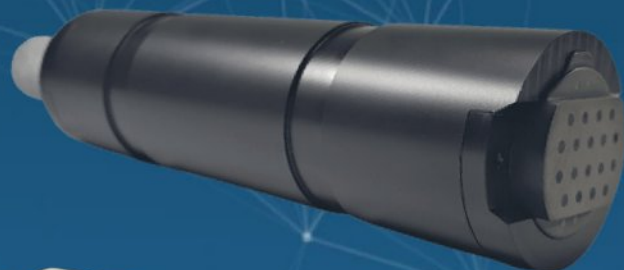
**AQUAREAD**  
water monitoring instruments



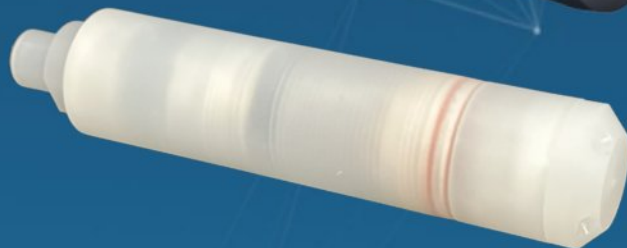
**PHATHOM**



**ANB Sensors**



**WAK**





# HydroTerra Platform

## FEATURES



Monitor environmental sensors and device locations and parameters



Configure sample rates, device outputs and variable alerts



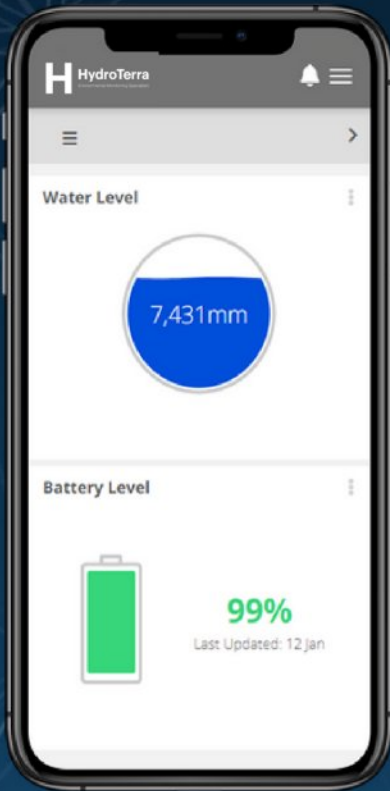
Control device outputs such as pumps, valves and gates



Receive SMS or email alerts based on variable thresholds



Download device data as csv files and images



## OVERVIEW

Sensors are remotely monitored with our custom cloud based platform. Interrogate volume and level trends, change sampling intervals and set SMS and email alerts. Our platform is flexible and modular meaning we can set it up the way you like from our library of maps, charts, gauges and controls.

## OTHER SERVICES

- Integrate other sensors to our platform
- White label the platform with your company branding
- Send your sensor data to third party platforms



**DataStream™**

by HydroTerra

# Specifications.

## Mechanical

<b>Size</b>	Width 55mm	Length 120mm	Height 45mm
<b>Weight</b>	200g		

## Environmental

<b>Operating Temperature</b>	-20 °C to 60 °C
<b>Storage Temperature</b>	-40 °C to 65 °C
<b>Humidity</b>	5 to 95% Rel

## Power

### External Power Supply Input

Input Voltage	12	24V
Input Current	700mA	

### Internal Battery (Rechargeable)

Chemistry	Lion		
Terminal Voltage	6.8	7.8	8.4V
Capacity	1.8/4.8 Ahr		

### Internal Battery (Non-Rechargeable)

Chemistry	LiMnO2		
Terminal Voltage	6.8	7.8	8.4V
Capacity	4.8 Ahr		

### Sensor Power Output

Output Voltage	11	12	13V
Output Current	500 mA		

### Digital Output

Output Voltage	11	12	13
Output Current	500 mA		

## Storage

### Non-volatile-Log

Size	4MB
Events	256000 Events

# Specifications.

## Clock

### RTC

Accuracy	-10 to 70°C	20	70ppm
----------	-------------	----	-------

### Network Time Sync Support

Supported Networks	Iridium	Cellular
--------------------	---------	----------

## External Sensor Inputs

### Serial - RS485 Modbus

#### RTU

Baud Rate	300	230400 Baud
-----------	-----	-------------

Parity	N/E/O
--------	-------

### Serial - SDI12

Analogue - 4-20mA	(2)
-------------------	-----

### Current Loop

Accuracy	0.5 %f.s
----------	----------

Digital - Pulse counter	(2)
-------------------------	-----

Input Voltage	1	5V
---------------	---	----

Frequency	3 kHz
-----------	-------

## Built-In Sensor Channels

### Barometer - Pressure

Range	10	1200 mbar
-------	----	-----------

Accuracy	25° C, 750 mba	-1.5	+1.5 mbar
----------	----------------	------	-----------

### Barometer - Temperature

Range	-40	85 °C
-------	-----	-------

Accuracy	-0.8	+0.8 °C
----------	------	---------

### Battery Voltage

### Supply Voltage

### Radio Signal Strength

### Microprocessor

### Temperature



# Specifications.

## Telemetry Radio Support

### Iridium

Protocols	Short Burst Data
-----------	------------------

Coverage	Worldwide
----------	-----------

### 4G Cellular LTE-M/NB-IOT

Protocols	MQTT
-----------	------

Email	
-------	--

Network Support	Telstra (Aus) and most major networks globally
-----------------	--

Coverage	4 million Sqr km
----------	------------------

## Bluetooth Support

Bluetooth Standard	5.0
--------------------	-----

Data Rate	2.5 kbps
-----------	----------