



Oyster LoRaWAN®

All 868, 902-928MHz LoRaWAN®
regions supported

Ultra-rugged and long-life battery-powered LoRaWAN® GPS
tracking device for asset tracking and management



5 Years Battery Life

Powered by 3 x AA Batteries with up
to 5 years battery life



Movement-Based Tracking

High-precision GPS/GLONASS
tracking device tracks assets when
they're on the move and enters sleep
mode when stationary to save power



Ultra-Rugged

Weatherproof and ultra-rugged IP67
Housing



User-Replaceable Batteries

Uses off-the-shelf Alkaline or Lithium
(recommended) batteries

Connectivity

LoRaWAN	Highly sensitive radio receiver is available in 868 or 902 - 928 MHz versions
LoRaWAN Regions	AU915 AS923-1 AS923-2 AS923-3 EU868 IN865 KR920 RU864 US915

Batteries

User-Replaceable Batteries	3 x AA
Battery Life	Up to 5 years of battery life at once-daily position updates. Enable intelligent movement-based tracking for longer battery life.
Supported Battery Types	Alkaline Lithium (LiFeS2) - recommended <small>*Please dispose of Lithium batteries in a safe and responsible manner</small>

Location

Module	uBlox MAX8
Constellation	Concurrent GPS / GLONASS
Channels	72 Channel High Sensitivy Receiver
Tracking Sensitivity	-167dBm industry-leading tracking performance
Low Noise Amplifier	GPS signals are boosted by a unique low-noise amplifier (LNA) allowing operation where other units fail
LoRaWAN Gateway Geolocation Fallback	LoRaWAN gateway geolocation fallback when there is no GNSS

Power

Input Voltage	4-6V DC
Sleep Current	<10uA* <small>*Average current in lowest power configuration</small>

Mechanics / Design

Dimensions	108 x 86 x 31 mm (4.25 x 3.39 x 1.22")
Weight	188 g (6.63 oz)
Housing	Ultra-Rugged Nylon Glass
IP Rating	IP67 rated housing ensures device can withstand fine dust, high-pressure spray, submersion for 30 mins in 1m of water, and extreme temperatures
Installation	Compact and concealable. Multiple installation options for covertly and easily securing the device to assets with screws, bolts, cable ties, rivets, and more.
Operating Temperature	-20°C to +60°C
GPS Antenna	Internal
3-Axis Accelerometer	3-Axis Accelerometer to detect movement, high G-force events, and more
Diagnostic LED	Diagnostic LED signifies operation status

Smarts

Geofence Alerts	The server can use device location to create geofences and alerts if an asset enters or leaves designated locations
Periodic or Movement-Based Tracking	Configure parameters to send updates based on set time intervals or when movement occurs. Adaptive tracking technology detects when the device is on the move and increases the update rate, providing detail when you need it while conserving battery when stationary.
Sleep Mode	Stationary devices enter sleep mode until movement occurs to conserve battery life and optimize data usage

Device Management

Flexible Configuration	Configure device parameters such as position update rate, movement and accelerometer settings, and more to fit any tracking application
Configuration App	Manage device firmware updates and parameters via a USB configuration cable and app. Some parameters can be changed via downlink.

Integration

Third-Party Integration	Easy integration with comprehensive documentation and a flexible and open payload format
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Security

Data Security

LoRaWAN® networks use AES-128 Encryption so your data is protected

Warranty

Manufacturer's Warranty

One year manufacturer's warranty

Certifications

Please contact us for a full list of compliance specifications and documentation for your region.

915MHz - FCC, ISED, ACMA (DoC), CE (Doc), LoRaWAN Certified(CM), UL Certified

868MHz - ACMA (DoC), UL Certified
