Yabby using LoRaWAN™ Technology

Compact IP-67 battery-powered GPS tracking on LoRaWAN Networks

digital MATTER
CONNECTED DEVICES

LoRaWAN™

APPLICATIONS

- Non-powered asset tracking
- Equipment locate and recovery
- Livestock tracking
- Anchoring and security of assets
- Shipping containers and freight

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The Yabby is a compact, battery-powered, IP67 tracking device. Perfect for mounting to small assets or in a concealed location

FEATURES

- Long battery life up to 3 years
- Global LoRaWAN region support
- High performance GPS / GNSS
- 3D Accelerometer
- Small size, IP67 Rated
- Uses 3 x AAA off-the-shelf batteries
- User replaceable batteries
- Configurable over-the air or via config cable
- After hours movement/activity alerts
- Easy to install simply “place-n-trace”
- Easy to conceal
- Suitable for livestock

MECHANICAL FEATURES

Low-profile IP67 rugged housing	The Yabby comes in a compact IP67 rated housing (waterproof) that is UV stable and rugged
Operating temperature	-20°C to +60°C For operation in extreme temperatures the device must be fitted with Lithium 1.5V batteries
Dimensions (mm)	L 85mm x W 63mm x H 24mm

CONNECTIVITY

LoRaWAN	All 868MHz and 915MHz regions supported
GPS and RF Antenna	Internal antennas tuned by RF laboratories to ensure optimal performance
Configuration	Setup by USB Cable and over-the-air (OTA) via downlink messages

Tracking

GPS Module	U-Blox EVA GPS, High sensitivity assisted GPS receiver, 72 channel (-167dBm tracking)
GNSS	GPS, BeiDou, Galileo, GLONASS, QZSS
Antenna with LNA	Our GPS design is boosted by a low-noise amplifier (LNA) allowing operation in "urban canyons" and in the most demanding conditions

SPECIFICATIONS

Batteries	3 x AAA Size 1.5V batteries – alkaline or lithium Low cost and readily available
3D Accelerometer	3 axis accelerometer allows the Yabby to "sleep" in an ultra-low power state yet still wake up when movement occurs
Adaptive Tracking	Adaptive-Tracking technology enables the accelerometer and GPS data to be used intelligently to work out if it is moving and to send frequent updates, as well as to scale the update rate down to once per day if the asset is stationary to preserve battery life
Autonomous Aiding Data	Predicts satellite locations Reduces time to first fix Improves performance in "urban canyons"

Oyster (left) vs Yabby Size Comparison