

## ASSET TRACKING

# Yabby

10+ Years of Compact, Rugged  
GPS Tracking for Non-Powered  
Assets

Yabby provides a reliable and rugged GPS tracking solution for non-powered assets that need to be monitored long term without external power. Designed for harsh environments, Yabby offers global LTE-M (Cat-M1) and NB-IoT connectivity, adaptive tracking, and over 10 years of battery life using off-the-shelf AAA batteries. With flexible installation options and a compact form factor, Yabby keeps your critical assets visible, secure, and accounted for.

A smarter way to track high-value, hard-to-reach assets.

Yabby helps organisations keep control of non-powered equipment that's mobile, remote, or exposed to tough environments, without needing hardwiring, manual checks, or frequent battery changes.

With built-in motion and impact sensors, flexible tracking modes, and location-based alerts, Yabby turns your smaller assets into visible, manageable parts of your operation.

From tools to trailers, livestock to containers, Yabby ensures that even your hardest-to-track assets don't go unnoticed.

1. Visualised on a map—whether stationary or in motion
2. Secured with alerts for movement, impact, and geofence breaches
3. Monitored for usage trends and maintenance through run-hour tracking

By reducing blind spots, enabling theft recovery, and capturing asset utilisation, Yabby helps you work smarter, recover faster, and protect more with less effort.



## Key features



Powered by 3 × AAA Lithium batteries that are easy to replace in the field.



Automatically adjusts update frequency based on movement to save power.



Sends alerts when battery levels reach low or critical thresholds.



IP68 and IK06-rated housing protects against water, dust and heavy impact.



Installs with screws, cable ties or rivets with no wiring or external power needed.



Internal antennas and LTE-M / NB-IoT roaming support for global connectivity.



## Key Benefits



Track assets on a map and replay historical movements



Activate theft recovery mode for real-time tracking



Get alerts for movement, impact, and tampering



Monitor run hours to understand asset utilisation



Set service reminders based on usage data



Remotely configure devices from anywhere



Protect data with end-to-end AES-256 encryption





# Technical Specifications

## Connectivity

LTE-M / NB-IoT (supports roaming between networks - roaming SIM required)	Nordic nRF9160 Modem operates on all major global LTE-M and NB-IoT bands. Supported LTE bands:  LTE-M (Cat-M1): B1, B2, B3, B4, B5, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B66  NB-IoT (Cat-NB1/NB2): B1, B2, B3, B4, B5, B8, B12, B13, B17, B19, B20, B25, B26, B28, B66
SIM Size & Access	Internal Nano 4FF SIM

## Location

GNSS	Sony CXD5605
Constellation	Concurrent GPS, GLONASS, Galileo, QZSS
Tracking Sensitivity	-147 dBm cold start / -161 dBm hot start
*Location Accuracy	~1m 2D RMS, GPS, -130dBm
GNSS Assistance	GNSS almanac and ephemeris data for greater sensitivity and position accuracy
Low Noise Amplifier	GPS signals are filtered and boosted by a SAW filter and low-noise amplifier (LNA) allowing operation
Cell Tower Location	Cell tower location fallback for positioning when GPS can't get a fix

\*Positioning accuracy specifications are provided by the GNSS supplier and reflect ideal conditions. Device configuration, installation, environmental conditions, augmentation services, and many other factors may lead to variations in positioning accuracy.

## Power

Input Voltage	3-5.5V
Sleep Current	<10uA* *Average current in lowest power configuration

## Technical Specifications (cont'd)

### Batteries

User-Replaceable Batteries	3 x AAA. Batteries not included.
Supported Battery Types	*Lithium (LiFeS2) - recommended for best performance *Please dispose of Lithium batteries in a safe and responsible manner
*Battery Life Estimates	Once Daily location updates – 10 years **Movement-Based location updates – 2 years Hourly location updates – 1.5 years

\* Battery life estimates are influenced by several factors including temperature, installation and orientation of the device, the frequency of location updates, network coverage, sensor integrations, peripherals, accelerometer settings, and more.

\*\* Movement-based estimates are based on 2 hours of movement, occurring 5 days a week, with default tracking parameters (location updates every 3 minutes and uploads every 30 minutes). Devices can be configured to provide more frequent location updates when the asset is in motion.

### Mechanics / Design

Dimensions	Standard - 84 × 63 × 24 mm (3.31 × 2.48 × 0.94") Livestock Collar - 109 × 60 × 30 (4.29 × 2.36 × 1.18")
Housing	Non-branded housing for optional white-labeling
IP/IK Rating	Ultra-rugged and waterproof IP68 and IK06-rated housing ensures the Yabby3 can withstand impact, fine dust, and brief submersion
Installation	Compact and concealable. Multiple installation options for covertly and easily securing the device to assets with screws, bolts, cable ties, rivets, and more. Collar housing available for securing device to livestock. Stainless steel screws supplied.
Operating Temperature	-30°C to +60°C
Cellular Antenna	Internal
GPS Antenna	Internal
3-Axis Accelerometer	3-Axis Accelerometer to detect movement, high G-force events
Diagnostic LED	Diagnostic LED indicates operation status
Flash Memory	Store weeks of records if device is out of cellular coverage. Storage capacity for over 2 weeks of 2-minute logging.
Onboard Speed and Heading	Current speed and heading is reported with each position update
Onboard Temperature	The device reports internal temperature which provides an indication of ambient temperature but may not always be precise.



## Technical Specifications (cont'd)

### Smart

Auto-APN	Auto-APN allows the device to analyze the SIM card and select the correct APN details from a list that is pre-loaded in the device's firmware.
Battery Life Monitoring	"Battery Low" and "Battery Critical" alert levels
Geofence Alerts	The server can use device location to create geofences and alerts if an asset enters or leaves designated locations.
Onboard Geofencing	Geofences can be downloaded directly to the device for enhanced location-based actions and alerts.
Impact Detection	Configure impact-detection alerts when G-forces are exceeded by a user-defined threshold
Intelligent Power Management	Early registration abort and location scan throttling options
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.
Preventative Maintenance	Set reminders based on distance traveled and run hours to reduce maintenance and repair costs.
Run Hour Monitoring	Capture run hours based on movement to understand and optimise asset utilisation.
Sleep Mode	Stationary devices enter sleep mode until movement occurs to conserve battery life and optimise data usage.
Theft Recovery	Switch to Recovery Mode in the case of theft or loss to activate real-time tracking for asset retrieval.
Tip Detection & Rotation Counting	Axis angle reporting, tip detection and rotation counting

### Device Management

Flexible Configuration	Configure device parameters such as position update rate, movement and accelerometer settings, and more to fit any tracking application.
Device Management Platform	Manage, monitor, configure, debug, update, and restart devices remotely from our cloud-based device management system.

# ● Technical Specifications (cont'd)

## Integration

Third-Party Integration	TCP Direct or HTTPS Webhook
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## Security

Data Security	Military-level AES-256 Encryption from device to Device Management Platform to protect the integrity and confidentiality of telematics data. Data forwarded On-Road IoT is sent via HTTPS for endto-end security.
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## Certifications

Visit <https://support.digitalmatter.com/device-certifications/device-certifications> for a full device certifications for your region.

Powerfleet (Nasdaq: PWFL; JSE: PWR; TASE: PWFL) is a global leader in the artificial intelligence of things (AIoT) software-as-a-service (SaaS) mobile asset industry. With more than 30 years of experience, Powerfleet unifies business operations through the ingestion, harmonisation, and integration of data, irrespective of source, and delivers actionable insights to help companies save lives, time, and money. Powerfleet's ethos transcends our data ecosystem and commitment to innovation; our people-centric approach empowers our customers to realise impactful and sustained business improvement. The company is headquartered in New Jersey, United States, with offices around the globe. Explore more at [www.powerfleet.com](http://www.powerfleet.com).