

Yabby3

Compact Tracker with Cellular Connectivity

Compact and ultra-rugged battery-powered GPS asset tracker featuring 10+ years battery life, with off-the-shelf 3 x AAA batteries. With Adaptive Tracking, the Yabby3 offers periodic or optional movement based tracking. The device tracks assets throughout the day and/or when movement occurs, entering sleep mode when inactive to conserve power and data usage. With IP68, IK06 housing, the Yabby3 is weatherproof.



Key Features



10 YEARS BATTERY LIFE

Game-changing battery life with up to 10 years on only 3 x AAA user-replaceable batteries



INDOOR/OUTDOOR

“Battery Low” and “Battery Critical” alerts



ADAPTIVE TRACKING

Tracks assets when they're on the move and enters sleep mode when stationary to save power



ULTRA-RUGGED

IP68 rated housing ensures the device can withstand fine dust, high-pressure spray, and submersion for 30 minutes in 1m of water

EXPERIENCE LEADING-EDGE TECHNOLOGY

Contact us today to implement innovative, reliable and scalable asset tracking.

Yabby3 Device Specs

CONNECTIVITY

LTE-M / NB-IoT	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

BATTERIES

User-Replaceable Batteries	3 x AAA. Batteries not included.
Supported Battery Types	Alkaline *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 – 3 years Hourly location updates – 1.5 years

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

POWER

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

MECHANICS / DESIGN

Dimensions	84 x 63 x 24 mm (3.31 x 2.48 x 0.94")
Weight	80 g
Housing	Ultra-Rugged IP68 Housing
IP 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.
Operating Temperature	-20°C to +60°C — For operation in extreme temperatures use Lithium batteries
Cellular Antenna	Internal
GPS Antenna	Internal
WiFi Antenna	Internal
Accelerometer	3-Axis Accelerometer to detect movement, high G-force events, and more
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.
On-Board Speed and Heading	Current speed and heading is reported with each position update
On-Board Temperature	The device reports internal temperature which provides an indication of ambient temperature but may not always be precise

SMARTS

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
Geofence Download to Device	Geofences can be downloaded directly to the device for enhanced location-based actions and alerts. Maximum of 100 Geofences with up to 100 points per geofence.
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/repair costs

SMARTS (CONTINUED)

Run Hour Monitoring	Capture run hours based on movement to understand and optimize asset utilization
Sleep Mode	Stationary devices enter sleep mode until movement occurs to conserve battery life and optimize 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 (planned)

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
Configuration App	Configurable with DMLink Provisioning tool

INTEGRATION

Third-Party Integration	TCP Direct or HTTPS Webhook
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SECURITY

Data Security	Military-level AES-256 Encryption from device to OEM Server to protect the integrity and confidentiality of telematics data. Data forwarded to third-party systems is sent via HTTPS for end-to-end security.
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WARRANTY

Manufacturer's Warranty	Two year manufacturer's warranty
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CERTIFICATIONS

LTE-M / NB-IoT - FCC, ISED, UKCA, CE, ACMA RCM, EMC, RoHS
Please visit support.digitalmatter.com for a full list of compliance specifications and documentation for your region.