

# Yabby GPS 4G Cat-M1/NB1

Compact IP-67 rugged battery-powered GPS tracking on 4G LTE CAT-M1 and NB-IoT networks



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

## FEATURES

- Operates on LTE CAT-M1 and NB-IoT networks around the world
- High performance GPS gives precise positioning
- Long battery life up to 3 years
- 3D Accelerometer
- Small size, IP67 Rated
- Uses 3 x AAA off-the-shelf replaceable batteries
- After hours movement/activity alerts
- Easy to install simply "place-n-trace"
- Easy to conceal
- Suitable for livestock, pallets, kegs, tools, people, packages, bins, containers etc...

## APPLICATIONS



Non-powered asset tracking



Equipment locate and recovery



Livestock tracking



Anchoring and security of assets



Shipping containers and freight

## MECHANICAL SPECIFICATIONS

<b>Compact Housing</b>	The Yabby comes in a compact IP67 rated housing (waterproof) that is UV stable and rugged
<b>Dimensions</b>	L 85 x W 63 x H 24mm
<b>Operating Temperature</b>	-20°C to +60°C Board and housing, ensure your batteries are rated to withstand the conditions of the application

## POWER

<b>Batteries</b>	The Yabby uses 3 x AAA 1.5V lithium batteries which are available at supermarkets / hardware stores
<b>Battery Life</b>	Up to 3 years depending on settings
<b>Max Input Voltage</b>	6V maximum
<b>Sleep current</b>	3uA

## OTHER

<b>Internal Memory</b>	Sufficient memory to store over 25,000 records. Normally data is sent to the server immediately but if the device is out of range there is space to ensure no data is lost
<b>3-axis accelerometer</b>	The 3-axis accelerometer allows the Yabby to 'sleep' in an ultra-low power state yet still wakeup when movement occurs. It can also detect high-G events and after-hours activity.

## CONNECTIVITY

<b>SIM Size</b>	Nano (4FF) size cellular SIM card
<b>2G or 4G</b>	The Yabby can be manufactured for specific markets around the world
<b>2G Modem</b>	2G: SARA-G350-02S-01 850/900/1800/1900 MHz
<b>4G Modem</b>	uBlox SARA-R410M Modem operates on all major global LTE-Cat-M1 and NB-IoT bands. These new low-power networks are specifically designed for IoT applications, providing great battery life  Supported LTE bands: 1*, 2, 3, 4, 5, 8, 12, 13, 18, 19, 20, 25, 26*, 28 (* roaming bands)

## GPS TRACKING

<b>GPS and Cellular Antenna</b>	Internal GPS and cellular antennas tuned by RF laboratories for optimal performance.
<b>GPS/GLONASS tracking</b>	UBLOX EVA-M8 GPS Module Concurrent GPS and GLONASS tracking 72 channel high sensitivity receiver -167dBm industry leading tracking performance
<b>AssistNow Offline</b>	AssistNow Offline aiding data for extremely fast time-to-first-fix and performance in urban canyon environments
<b>Low Noise GPS Amplifier (LNA)</b>	GPS signals are boosted by a special low-noise amplifier (LNA). This allows operation where normal units will fail to receive GPS signal

## FIRMWARE SMARTS

<b>Adaptive Tracking</b>	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
<b>OTA Configuration</b>	The Yabby can be remotely configured and updated OTA (over the air). Device management is performed from Digital Matter's OEM Server device management platform.
<b>AES-256 Security</b>	The Yabby uses bank-level AES-256 device authentication and data encryption to ensure that your data is kept private and secure
<b>Recovery Mode</b>	The Yabby can be remotely switched into Recovery Mode which switches the device to do live tracking and reporting – so that you can get your asset back!
<b>G-Force Events</b>	The 3D accelerometer optionally enables High-G event detection (like assets being dropped or involved in accidents) and reports these to the server.
<b>Geo-Fences</b>	The Yabby has the capacity to hold hundreds of geo-fences that can be downloaded to it from the server and updated Over-The-Air. A future firmware version will enable alerts to be sent to the server upon entering or leaving a geo-fence.
<b>After Hours</b>	The Yabby can be set to alert on after-hours activity, and to use alternate logging parameters

### Man Down

The Yabby can be configured to send an alert to the server when the device has not moved for a set amount of time. Handy for livestock, shipments etc.

