

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

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

POWER

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

OTHER

Internal Memory	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
3-axis accelerometer	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

SIM Size	Nano (4FF) size cellular SIM card
2G or 4G	The Yabby can be manufactured for specific markets around the world
2G Modem	2G: SARA-G350-02S-01 850/900/1800/1900 MHz
4G Modem	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

GPS and Cellular Antenna	Internal GPS and cellular antennas tuned by RF laboratories for optimal performance.
GPS/GLONASS tracking	UBLOX EVA-M8 GPS Module Concurrent GPS and GLONASS tracking 72 channel high sensitivity receiver -167dBm industry leading tracking performance
AssistNow Offline	AssistNow Offline aiding data for extremely fast time-to-first-fix and performance in urban canyon environments
Low Noise GPS Amplifier (LNA)	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

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
OTA Configuration	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.
AES-256 Security	The Yabby uses bank-level AES-256 device authentication and data encryption to ensure that your data is kept private and secure
Recovery Mode	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!
G-Force Events	The 3D accelerometer optionally enables High-G event detection (like assets being dropped or involved in accidents) and reports these to the server.
Geo-Fences	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.
After Hours	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.

