

Yabby 4G Cat-M1/NB-IoT GPS

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

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.

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:
1-5, 6, 8, 12, 13, 17, 19, 20, 25, 26, 28

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 harsh G-force 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.

