Yabby Wi-Fi 4G Cat-M1/NB1

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

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CONNECTED DEVICES

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

The device uses a Wi-Fi 'sniffer' to detect nearby access points and the received signal strength. These values can be used to triangulate position allowing for **indoor tracking**

FEATURES
- Operates on LTE CAT-M1 and NB-IoT networks around the world
- Wi-Fi Positioning System (WPS)
- 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

Indoor Tracking

Anchoring and security of assets

Pallets and parcels

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Rev 2.0 – 4-Dec-18

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

WI-FI TRACKING

Wi-Fi Positioning System (WPS)	The Yabby Wi-Fi uses a Wi-Fi 'sniffer' to scan for Wi-Fi access points and the signal strength from each one. This information is then used to triangulate a position which is typically accurate to 100 ft / 30m in metropolitan areas. And this can all be done in typically less than 3 seconds, using a lot less power than a typical GPS fix. Even the best GPS will not perform well indoors (such as in a warehouse), whereas Wi-Fi access points can be detected.

FIRMWARE SMARTS

Adaptive Tracking	Adaptive-Tracking technology enables the accelerometer and Wi-Fi 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

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.

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