



# SEACONS

## Integrated IoT sea-tracking-beacons

### Product Description:

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

### Key Features:

- Precise GPS positioning
- Long battery life (5 years)
- 3D Accelerometer
- Movement / Activity reports
- Small size, IP67 Rated
- Easy to Install - "Place-n-trace"
- Light spike sensor



## Mechanical

- Housing:** Compact IP67 rated housing (waterproof) that is rugged and UV stable
- 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:** 3 x AAA 1.5V lithium batteries
- Battery Life:** Up to 5 years depending on settings
- Max Input V:** 6V maximum
- Sleep Current:** 3uA

## Other

- Internal Memory:** 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 loss
- 3-axis accelerometer:** Sleep' in an ultra low power state yet still wake up when movement occurs. Detect high G events and after hours activity.

## Connectivity

- SIM Size:** Nano (4FF) size cellular SIM card
- 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 & Cellular Antenna:** Internal GPS and cellular antennas tuned for optimal performance.
- 2G Modem:** 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 fix and performance issues
- 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:** Remotely configured and updated OTA (over the air). Device management is performed from Digital Matter's OEM Server device management platform
- AES 256 Security:** Bank level AES 256 device authentication and data encryption to ensure data is kept private and secure
- Recovery Mode:** 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:** Capacity to hold hundreds of geo-fences that can be downloaded from the server and updated Over The Air. Alerts sent to the server upon entering or leaving a geo-fence
- After Hours:** Alerts on after hours activity and alternate logging parameters
- Man Down:** Configure to send alerts to the server when the device has not moved for a set amount of time
- Cargo Breaches:** Configure to send alerts to the server when the container has been opened/breached in transit

