

Rugged design, deploy once battery life and advanced capabilities

Introducing a cost-effective, battery-powered outdoor asset tracker designed for 4G networks. This device ensures reliable outdoor positioning and has highly accurate GPS tracking and cell tower location fallback.

It offers an impressive up to 8 years of battery life using just two user-replaceable AA batteries, making it a deploy-once solution.

Using Wi-Fi scanning, this device can position your equipment both indoors and outdoors.

A magnetic switch enables easy activation and tamper detection. With a slim, rugged form factor and IP68 housing, this tracker is built to withstand the harshest environments while maintaining top-tier connectivity via 4G.

KEY FEATURES AND BENEFITS

High Precision GPS

Multiple GNSS constellations are utilized for highly accurate outdoor location tracking with Cell Tower Location fallback.

'Deploy Once' Battery Life

Powered by user-replaceable 2 x AA Lithium batteries for up to 8 years of battery life with 'Battery Low' and 'Battery Critical' alerts.

Slim & Ultra-Rugged

Ultra-rugged and waterproof IP68 and IK07-rated housing ensures the Barra GPS can withstand impact, fine dust, and brief submersion.

Magnetic Activation & Tamper Detection

Simplify and secure deployments with magnetic activation and tamper detection.

Wire-Free Installation

Compact and concealable. Multiple installation options for covertly and easily securing the device to assets with screws, bolts, cable ties, rivets, and more. Stainless steel screws supplied.

Flexible Configuration

Configure device parameters such as heartbeat rate, movement and accelerometer settings, and more to fit any tracking application.



BARRA HARDWARE FEATURES

- 'Deploy Once' Battery Life up to 8 years
- Wi-Fi scanning to support both in- and outdoor positioning.
- Magnetic Activation & Tamper Detection
- Periodic or Movement-Based
- <2 m GPS accuracy and 4G connectivity.
- Rugged design. IP68.

Periodic or Movement-Based

Adaptive tracking technology detects when the device is on the move and increases the update rate, providing detail when you need it while conserving battery when stationary.

Asset Utilization

Capture run hours based on movement to understand and optimize asset utilization.

Theft Recovery

Switch to Recovery Mode in the case of theft or loss to activate real-time tracking for asset retrieval.

White-Label Ready

Non-branded housing for seamless deployments under your own brand.

Technical specifications

CONNECTIVITY

Cellular Module: Nordic nRF9160 Modem operates on all major global LTE-M and NB-IoT bands

Supported LTE bands: LTE-M (Cat-M1): B1, B2, B3, B4, B5, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B66

NB-IoT (Cat-NB1/NB2): B1, B2, B3, B4, B5, B8, B12, B13, B17, B19, B20, B25, B26, B28, B66.

SIM Size & Access: Internal Nano 4FF SIM, eSIM Ready (MOQs apply).

LOCATION

GNSS Module: uBlox Max-M10

Environment: Outdoor

Constellations: Concurrent GPS, GLONASS, Galileo, BeiDou, QZSS

Cell Tower Location: Cell tower fallback for positioning when there is no GNSS

***Location Accuracy:** Horizontal ~ 1.5m CEP. Results vary depending on real world conditions.

Low Noise Amplifier: GPS signals are filtered and boosted by a SAW filter and low-noise amplifier (LNA) allowing operation where other units fail.

GNSS Assistance: GNSS almanac data for greater sensitivity and position accuracy.

POWER

Input Voltage: 2.2 - 3.6V

Sleep Current: <10uA*

*Average current in lowest power configuration

BATTERIES

User-Replaceable Batteries: 2 x AA. Batteries not included.

Supported Battery Types: Alkaline, Lithium (LiFeS2) – recommended for best performance.

***Battery Life Estimates:** Once Daily location updates – 8 years

****Movement-Based location updates – 3 years**

Hourly location updates – 2 years

* Battery life estimates are influenced by several factors including temperature, installation and orientation of the device, the frequency of location updates, network coverage, sensor integrations, peripherals, accelerometer settings, and more.

** Movement-based estimates are based on 2 hours of movement, occurring 5 days a week, with default tracking parameters (location updates every 3 minutes and uploads every 30 minutes). Devices can be configured to provide more frequent location updates when the asset is in motion.

DESIGN

Dimensions: 149 x 51 x 21 mm

Housing: Non-branded housing for optional white-labelling

IP/IK: Rating Ultra-rugged and waterproof IP68 and IK07-rated housing ensures the Barra can withstand impact, fine dust, and brief submersion

Installation: Compact and concealable. Multiple installation options for covertly and easily securing the device to assets with screws, bolts, cable ties, rivets, and more.

Magnetic Switch: Magnetic switch enables quick activation and tamper detection

Operating Temperature: -30°C to +60°C

Cellular Antenna: Internal

GPS Antenna: Internal

3-Axis Accelerometer: 3-Axis accelerometer to detect Movement and High-G events.

Diagnostic LED: Diagnostic LED indicates operation status

Flash Memory: Store weeks of records if device is out of cellular coverage. Storage capacity for over 2 weeks of 2-minute logging.

Speed and Heading: Current speed and heading is reported with each position update

Onboard Temperature: The device reports internal temperature which provides an indication of ambient temperature

WARRANTY

Manufacturer's Warranty: Two-year manufacturer's warranty.

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