TARO SOFTWARE

PRE-COAT GPS

LTE-M (Cat-M1)/NB-IoT

Lowest-cost battery-powered asset tracker for LTE-M/NB-IoT networks

149 x 51 x 21 mm (5.9 x 2 x 0.8 in)

‘Deploy Once’ Battery Life

8+ years on 2 x AA user-replaceable batteries with ‘Battery Low’ and ‘Battery Critical’ alerts

Adaptive Tracking

Tracks assets when they’re on the move and enters sleep mode when stationary to conserve energy

Magnetic Activation & Tamper Detection

Magnetic switch for activation and Tamper Detection

Slim & Ultra-Rugged

Compact and waterproof housing ensures the device can withstand impact, fine dust, and brief submersion

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

*Results vary based on real world conditions. Device configuration, installation, environmental conditions, augmentation services, and many other factors may lead to variations in positioning 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 *Please dispose of Lithium batteries in a safe and responsible manner
*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.

Mechanics/Design

Dimensions	Screw – 149 x 51 x 21 mm (5.9 x 2 x 0.8 in)
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

Smarts

Adaptive Tracking	Configure parameters to send updates based on set time intervals or when movement occurs. 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.
Battery Life Monitoring	‘Battery Low’ and ‘Battery Critical’ alert levels
Impact Detection	Configure impact-detection alerts when G-forces are exceeded by a user-defined threshold
Magnetic Activation	Magnetic switch can be used to activate the unit – meaning SIM cards and batteries can be pre-installed, simplifying deployment
Onboard Geofencing	Geofences can be downloaded directly to the device for enhanced location-based actions and alerts. Maximum of 500 Geofences with up to 100 points per geofence.
Rotation Counting	Keeps a count of the number of rotations of the device about the Z axis
Run Hour Monitoring	Capture run hours based on movement to understand and optimize asset utilization
Sleep Mode	Stationary devices enter sleep mode until movement occurs to conserve battery life and optimize data usage
Tamper Detection	Magnetic switch provides an alert if the device is removed from your asset
Theft Recovery	Switch to Recovery Mode in the case of theft or loss to activate real-time tracking for asset retrieval
Tip Detection	Define a range of angles that constitutes a ‘tipped’ state and configure alerts

Device Management

Flexible Configuration	Configure device parameters such as position update rate, movement, and accelerometer settings, and more to fit any tracking application
Device Management Platform	Manage, monitor, configure, debug, update, and restart devices remotely from our cloud-based device management system
Configuration App	Configurable with DM-Link provisioning tool

Integration

Third-Party Integration	TCP Direct or HTTPS Webhook

Security

Data Security	Military-level AES-256 Encryption from device to Device Manager to protect the integrity and confidentiality of telematics data. Data forwarded to third-party systems is sent via HTTPS for end-to-end security.

Warranty

Manufacturer's Warranty	Two-year manufacturer's warranty. Exclusions apply.

Certifications

Please check our knowledge base for regulatory and network certifications