

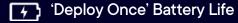
#### NEW

# BARRA GPS

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

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





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

#### ←**a** Adaptive Tracking

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



Magnetic switch for activation and Tamper Detection

#### ష్- Slim & Ultra-Rugged

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

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

## Connectivity

	Nordic nRF9160 Modem operates on all major global LTE-M and NB-IoT bands		
Cellular Module	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 operat where other units fail		
GNSS Assistance	GNSS almanac data for greater sensitivity and position accuracy		

<sup>\*</sup>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		

<sup>\*</sup>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.

## 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	

03 - BARRA GPS www.tgtracking.com

## **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.
---------------	---

04 - BARRA GPS www.tgtracking.com

## Warranty

		, ,,	, .
Mani	ıractur	ersw	/arrantv

Two-year manufacturer's warranty. Exclusions apply.

## **Certifications**

In Progress

## **New Product Introduction**

PLEASE NOTE: The specifications set out in this draft data sheet are not final, are subject to change without notice and should not be relied on as anything other than an estimation of the device's anticipated specifications. A data sheet setting out the device's final specifications will be made available in due course. In the interim please contact us should you have any questions.

05 - BARRA GPS www.tgtracking.com