

ASSET TRACKING

# Remora

Maximum visibility and protection  
for all your non-vehicle assets

The **Remora** provides a comprehensive wireless solution for tracking mobile assets without a permanent or reliable power source. Remora is a low profile, rugged Cat1-bis / 2G GPS tracking device designed for tracking non-powered assets, trailers, or any other asset where long battery life is required without sacrificing the frequency of update. The Remora makes use of removable off-the shelf batteries for easy maintenance and reduced costs.

A reliable management solution that focuses on maximising asset efficiency.

The benefits of a professional, fully integrated fleet management solution are well-known among fleet owners and managers. Tracking and monitoring vehicles and drivers enables an array of practical and cost-related improvements.

But what about in industries where assets are just as valuable as vehicles and drivers?

This device offers superior protection for assets of all kinds - mobile and fixed; with or without a dedicated power source - across many different industries. Unlike manual systems, Remora offers an automatic, electronic registry of assets, their statuses and whereabouts so that they can be:

1. Located and/or tracked on a map – historically or in real-time.
2. Managed in terms of service intervals and odometer readings.
3. Billed more accurately when rented out.

This improved control and visibility can dramatically reduce the costs of not knowing an asset's whereabouts and has the potential to optimise asset deployment and utilisation.



## Key features



Powered by off-the-shelf Lithium Thionyl Chloride (LTC) batteries for extreme temperature operation.



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



Battery meter with 'Battery Low' and 'Battery Critical' alerts.



Weatherproof and ultra-rugged IP68 and IK07 housing.



Cat1-bis / 2G Connectivity



## Key Benefits



No wiring required - bolt onto the vehicle's body with screws



Continuous battery level reporting and low battery alarm



Trip and utilisation timeline



Certificate and license reminders



High-sensitivity GPS and assisted GPS ensure quick latch times and accurate position recording



Track your assets on an interactive map and replay historical trips



# Technical Specifications

## Connectivity

LTE-M / NB-IoT  (supports roaming between networks - roaming SIM required)	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
Bluetooth® 5.2 Gateway	Bluetooth 5.2 gateway reports nearby Bluetooth tags and sensors for affordable-tagged asset management and sensor monitoring.
SIM Size & Access	Internal Nano 4FF SIM

## Location

GNSS Module	SONY CXD5612
Constellation	Concurrent GPS, GLONASS, Galileo, QZSS, Beidou
Tracking Sensitivity	-149dBm cold start / -163dBm hot start
*Location Accuracy	~1m 2D RMS, GPS, -130dBm
GNSS Assistance	GNSS almanac and ephemeris data for greater sensitivity and position accuracy
Low Noise Amplifier	GGPS signals are filtered and boosted by a SAW filter and low-noise amplifier (LNA) allowing operation where other units fail.
Cell Tower Location	Cell tower location fallback for positioning when GPS can't get a fix

\* Positioning accuracy specifications are provided by the GNSS supplier and reflect ideal conditions. Device configuration, installation, environmental conditions, augmentation services, and many other factors may lead to variations in positioning accuracy.

## Power

Input Voltage	5-16V DC
Sleep Current	<10uA* *Average current in lowest power configuration.
Safety	Reverse Polarity Protection and Fuse Protection

## Technical Specifications (cont'd)

### Batteries

User-Replaceable Batteries	2 x D Cell (3.7V per cell). Batteries not included.
Supported Battery Types	Lithium Thionyl Chloride (LTC) *Please dispose of Lithium batteries in a safe and responsible manner
*Battery Life Estimates	Once Daily location updates – 20 years **Movement-Based location updates – 10 years Hourly location updates – 10 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	222 × 91 × 41 mm (8.74 × 3.58 × 1.61")
Weight	430g
Housing	Non-branded housing for optional white-labeling
IP/IK Rating	Ultra-rugged and waterproof IP68 and IK07-rated housing ensures the Remora3 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. Stainless steel screws provided.
Operating Temperature	-30°C to +60°C
Cellular Antenna	Internal
GPS Antenna	Internal
3-Axis Accelerometer	3-Axis Accelerometer to detect movement, high G-force events, and more
Diagnostic LED	Diagnostic LED indicates the operation status
Flash Memory	Store weeks of records if device is out of cellular coverage. Storage capacity for over 28 days of continuous 30-second logging
On-Board Speed and Heading	Current speed and heading is reported with each position update
On-Board Temperature	The device reports internal temperature which provides an indication of ambient temperature but may not always be precise

## Technical Specifications (cont'd)

### Smarts

Auto-APN	Auto-APN allows the device to analyze the SIM card and select the correct APN details from a list that is pre-loaded in the device's firmware.
Battery Life Monitoring	Battery Meter with "Battery Low" and "Battery Critical" alert levels
Geofence Alerts	The server can use device location to create geofences and alerts if an asset enters or leaves designated locations.
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.
Impact Detection	Configure impact-detection alerts when G-forces are exceeded by a user-defined threshold.
Intelligent Power Management	Early registration abort and location scan throttling options
Periodic or Movement-Based 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.
Preventative Maintenance	Set reminders based on distance traveled and run hours to reduce maintenance and repair costs.
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 optimise asset utilisation.
Sleep Mode	Stationary devices enter sleep mode until movement occurs to conserve battery life and optimise data usage.
Tamper Alerts	Magnetic tamper switch provides an instant 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.
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## Technical Specifications (cont'd)

Device Management Platform	Manage, monitor, configure, debug, update, and restart devices remotely from our cloud-based device management system.
Configuration App	Configurable with DMLink Provisioning tool

### Integration

Third-Party Integration	TCP Direct or HTTPS Webhook
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### Security

Data Security	Military-level AES-256 Encryption from device to Device Management Platform to protect the integrity and confidentiality of telematics data. Data forwarded to On-Road IoT is sent via HTTPS for end-to-end security
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### Certifications

LTE-M / NB-IoT	FCC (in progress), ISED, CE, ICASA, ACMA RCM, EMC, RoHS Visit <a href="https://support.digitalmatter.com">support.digitalmatter.com</a> for full device certifications for your region
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Powerfleet (Nasdaq: PWFL; JSE: PWR; TASE: PWFL) is a global leader in the artificial intelligence of things (AIoT) software-as-a-service (SaaS) mobile asset industry. With more than 30 years of experience, Powerfleet unifies business operations through the ingestion, harmonisation, and integration of data, irrespective of source, and delivers actionable insights to help companies save lives, time, and money. Powerfleet's ethos transcends our data ecosystem and commitment to innovation; our people-centric approach empowers our customers to realise impactful and sustained business improvement. The company is headquartered in New Jersey, United States, with offices around the globe. Explore more at [www.powerfleet.com](https://www.powerfleet.com).