Remora 2

Super long-life, battery powered, IP67 GPS tracking device with Bluetooth

WESTCOAST GPS

Bluetooth®

The Remora, redesigned and supercharged. The Remora 2 is an IP67 rated, rugged 2G or 4G Cat-M1/Nb-IoT GPS device designed for tracking non-powered assets where super-long battery life is required without sacrificing the frequency of updates and accuracy performance.

FEATURES
- Up to **5 years** once-hourly updates!
- No install required, simply "place 'n trace"
- IP67 water and dust proof
- Bluetooth Low Energy (BLE) v5
- Switch from "locate" to "track" over-the-air
- Magnetic tamper detection
- Battery Meter (Coulomb Counter)
- Unauthorised movement alerts
- Integrated Accelerometer
- High-G Event Detection

APPLICATIONS

Non-powered asset tracking	Run hour monitoring	Trailers and mobile assets	Shipping containers and freight	Anchoring and security of assets	Low-value asset tracking

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MECHANICAL SPECIFICATIONS

Low-profile IP67 rugged housing	The IP67 rated housing is made of sturdy ABS/Polycarbonate plastic to survive bumps, knocks and to many years in the sun and weather.
Dimensions	L 224 X W 91 x H 41 mm
Operating Temperature	-20°C to +60°C[1] 1 Temp spec is for the board and housing Be sure to check the temperature tolerance of your batteries.

POWER

Input Voltage	Max input voltage 16V, no reverse input protection
LTC Batteries	Batteries are user replaceable. The Remora 2 requires Lithium Thionyl Chloride (LTC) 'Spiral Type' batteries. These offer high capacity, extended temperature tolerance and an extremely low self-discharge rate for the optimal performance in tracking applications. 2 x D Cell LTC Spiral Type batteries for the Remora 2D

CONNECTIVITY

SIM Size	Nano (4FF) Size Cellular SIM Card
2G or 4G M1/NB1	The device is supplied with either a 2G or 4G Cat-M1/Nb-IoT modem for operation on various global networks.
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: 1-5, 6, 8, 12, 13, 17, 19, 20, 25, 26, 28

GPS TRACKING

GPS and Cellular Antenna	Internal GPS and cellular antennas tuned by RF laboratories for optimal performance.
GPS/GLONASS tracking	uBlox EVA-M8 Concurrent GPS and GLONASS tracking 72 channel high sensitivity receiver -167dBM industry leading tracking performance
AssistNow Offline	AssistNow Offline aiding data for extremely fast time-to-first-fix and performance in urban canyon environments
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 – like in a container stack!

OTHER	
Bluetooth v5	The Remora 2 is equipped with a Bluetooth v5 module, enabling it to communicate with Bluetooth tags. Such tags can be placed on low-value assets to provide their position when in range of the Remora 2.
Internal Memory	Sufficient memory to store over 50,000 records. Normally data is sent to the server immediately but if the device is out of range there is space to ensure no data is lost.
3-axis accelerometer	The 3-axis accelerometer allows the Remora 2 to 'sleep' in an ultra-low power state yet still wakeup when movement occurs. The accelerometer can also be used to detect extreme G-Force events such as an accident or abuse of the asset, for example dropping a container
Magnetic Tamper Detect	Optional magnetic wireless tamper switch detects when the device has been removed from the asset.
Battery Meter	A coulomb counter acts as a battery meter, tracking the energy consumption of the Remora 2. This enables an accurate battery percentage to be reported. The battery meter also allows accurate battery life predictions. Simply deploy the Remora 2 in your application with the desired settings. The energy usage will be reported, enabling you to extrapolate to determine the battery life time.

FIRMWARE SMARTS	
OTA Configuration	The Remora 2 can be remotely configured and updated OTA (over the air). Device management is performed from OEM Server device management platform.
Recovery Mode	The Remora 2 can be remotely switched into Recovery Mode which switches the device to live tracking and reporting – so that you can get your asset back!
G-Force Events	The Remora 2 can detect High G-Force events (like assets being dropped or involved in accidents) and report these to the server.
Geo-Fences	The Remora 2 has the capacity to hold hundreds of geo-fences that can be downloaded to it from the server and updated Over-The-Air. A future firmware update will allow the Remora 2 to use this geo-fence information to implement geo-fence based alerting on the device, or use alternate logging parameters when inside a geo-fence.
Adaptive Tracking	The Remora 2 can be set to use Adaptive-Tracking technology where the accelerometer and GPS data are used to intelligently work out if it is moving and to send frequent updates, and to scale the update rate down to once per day if the asset is stationary - to preserve battery life.
Performance Monitoring	Track how the Remora 2 is using its power with intelligent performance counters. Monitor wakeups, GPS fixes, uploads and more to understand exactly what the device is doing.

AES-256 Security	The Remora 2 uses bank-level AES-256 device authentication and data encryption to ensure that your data is kept private and secure
Text Message Set Up	APN and server details can be set by SMS

CERTIFICATIONS	
Certifications	Telstra Certified 4G Modem