Mobile Gateway

LTE-M (Cat-M1)/NB-IoT with BLE, GPS & Wi-Fi Location

Store Technology Group

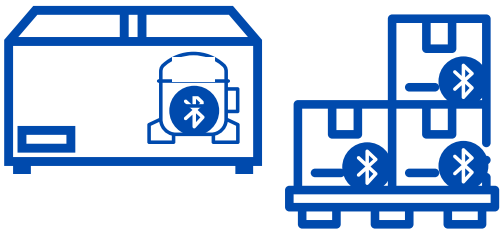
Combination tracker and gateway, this mobile gateway can track its location through GPS & Wi-Fi and scan for nearby Bluetooth® proximity tags and assets. This allows for high precision indoor & outdoor tracking and managing multi-part assets or systems.

4.25 x 3.39 x 1.18 in (108 x 86 x 30 mm)

Use Cases

Shopping Cart Tracking - Indoor/Outdoor

In addition to high precision outdoor tracking, the mobile gateway allows you to anonymously track carts inside a building and determine routes and patterns with its built-in Bluetooth® gateway.



Multi Sensor Management and Tracking

The Mobile Gateway can track an asset and report critical asset health data from Bluetooth® equipped sensors such as the T/H Sensor. Easily track location, temperature, humidity, compressor vibration, fuel levels - all with a no wire install.

Technical Specifications

Location anywhere through preconfigured cellular chip. No extra costs or installation required.

Bluetooth 5.2 Gateway allows up to 100 tagged assets to be scanned by a single HD Gateway.

Both Indoor and Outdoor route history and ribbon charts, when indoor environment is equipped with Bluetooth® tags.

Replaceable AA Batteries can provide as much as 7 years of battery life.

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
Bluetooth® 5.2 Gateway	Bluetooth 5.2 gateway reports nearby Bluetooth tags and sensors for affordable tagged asset management and sensor monitoring. **Gateway range influenced by sensors used, Gateway location and environmental interference.**

Location

Chipset Environment	Semtech LR1110
GPS/GNSS Scanning	Indoor/Outdoor Concurrent GPS/BeiDou
Wi-Fi Location Scanning	Indoor asset location using Wi-Fi access point scanning
Cell Tower Location	Cell tower fallback for positioning when there is no GNSS or Wi-Fi signal Asset
Cloud-Based Solver	location is calculated in the cloud, not on device, reducing battery consumption
*Location Accuracy	~15 ft -200 ft with GPS/GNSS scanning in open areas ~30 ft - 450 ft with Wi-Fi in urban areas ~800 ft to 1 mile with Cell Tower Geolocation - dependent on number of nearby towers
Low Noise Amplifier	GPS signals are filtered and boosted by 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.

Batteries

Replaceable Batteries	3 x AA Batteries
*Battery Life Estimates	Twice Daily Location Updates - 7 Years Daily Updates with Recovery Mode - 4 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. Battery life calculators are available at support.digitalmatter.com.

Power

Input Voltage	3.0 - 5.5V
Sleep Current	<10uA, Average current in lowest power configuration

Mechanics/Design

Dimensions	4.25 x 3.39 x 1.18 in (108 x 86 x 30 mm)
IP/IK Rating	Ultra-rugged and waterproof IP68 and IK07-rated housing can withstand impact, fine dust, and brief submersion
Operating Temperature	-22° F to 140° F (-30°C to +60°C)
Cellular Antenna	Internal
GPS Antenna	Internal
Wi-Fi Antenna	Internal
3-Axis Accelerometer	3-Axis accelerometer to detect Movement and High-G events
Diagnostic LED Flash	Diagnostic LED indicates operation status
Memory	Internal flash memory stores approximately 1400 records
Temperature	Reports internal temperature which provides an indication of ambient temperature

Smarts

Adaptive Tracking	Customizable location updates and reporting conditions. Movement based, time based and geofence triggers can all influence when a tracker communicates its location. These automated or manual updates can be used to conserve battery life and provide location intelligence exactly when you need it.
Battery Life Monitoring	'Battery Low' and 'Battery Critical' alert levels
Geofence Alerts	QuickTrack platform can use device location to create geofences anywhere and alerts if an asset enters or leaves designated locations
Impact Detection	Impact-detection alerts when G-forces are exceeded by a defined threshold
Run Hour Monitoring	Capture run hours based on movement to understand and optimize asset utilization
Tamper Detection	Optional magnetic switch provides an alert if the device is removed
Theft Recovery	Automated or manual triggers for "Recovery Mode" to quickly locate off-premise carts with near real time location updates while conserving battery when on premise.

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 QuickTrack software is sent via HTTPS for end-to-end security.