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IoT Asset Tracking with Bluetooth® Low Energy

Robust and ultra-rugged Bluetooth Low Energy Gateways with GPS for smarter asset management and condition monitoring

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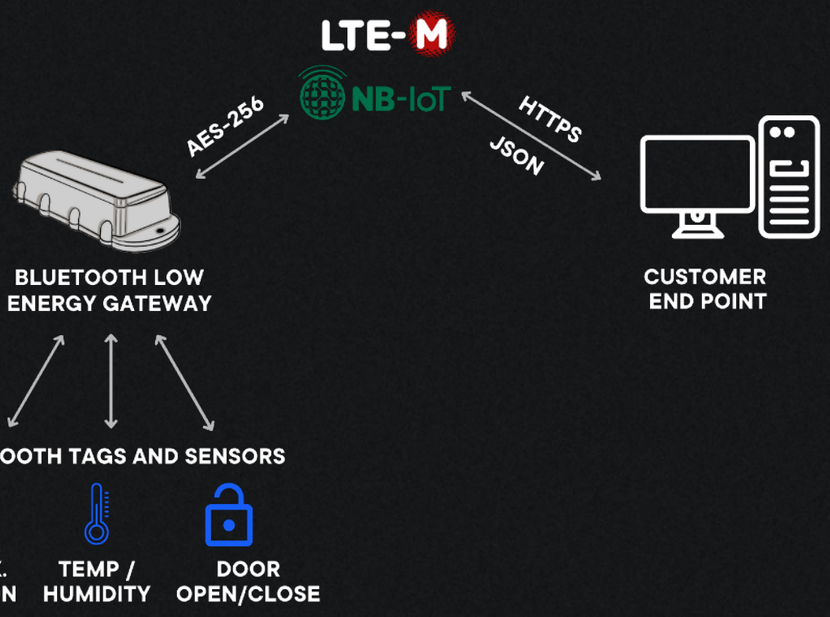
Track More for Less with Bluetooth Low Energy

Digital Matter Bluetooth Gateway devices feature concurrent location tracking (GNSS, Wi-Fi and Cell Tower Location) and Bluetooth Low Energy, enabling GPS track-and-trace with customizable condition monitoring for critical assets.

With battery-powered and wired Gateway solutions, simple integration protocols and hundreds of Bluetooth Low Energy tags, sensors, and beacons on the market, it's now faster and more affordable than ever to protect, optimize, and derive more value from the assets that matter.



Impact and High-G Force Detection

Receive instant alerts when, and at what locations, high-value assets or dangerous goods are mishandled during transit.

Door Open/Close Monitoring

Integrate with a variety of Bluetooth sensors to enable door open/close monitoring for tamper detection, reporting, and/or compliance.

Inventory and Asset Management

Bluetooth Location Tags can be used to manage stock, inventory, pallets, tools, small pieces of equipment, or other assets where a larger (and more expensive) full GPS device may not make commercial sense.

Cold Chain Management

Install Bluetooth Low Energy sensors in temperature/humidity-sensitive trucks, freezers, or packages to maintain safety and compliance.

Enhanced Fleet Management

Utilize Bluetooth fuel level and fuel flow monitoring probes, axle load meters, tire pressure and temperature sensors, and more for a robust and wire-free fleet management solution.

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Bluetooth® Gateways

	Oyster Edge	Remora3	G120
Connectivity	LTE-M (Cat-M1) and NB-IoT	LTE-M (Cat-M1) and NB-IoT	2G or LTE-M (Cat-M1) / NB-IoT Optional Iridium Edge Satellite Hybrid
Example Use Cases	Equipment, Bins, Containers, Supply Chain, Logistics, BLE Tag and Condition Monitoring	Large Equipment, Bins, Containers, Supply Chain, Logistics, BLE Tag and Condition Monitoring	Vehicles, Trailers, Heavy Equipment, Bluetooth tag/ sensor monitoring, Advanced Fleet Management, Global coverage
Power	Battery-Powered	Battery-Powered	Wired
Bluetooth	Bluetooth 5.2 Gateway	Bluetooth 5.2 Gateway	Bluetooth 5.0 Gateway
Installation	Covertly install anywhere with screws, bolts, cable ties, etc.	Covertly install anywhere with screws, bolts, cable ties, etc.	24 pin connector provided as standard
IP67 Rated	Yes	Yes	
Environment	Indoor/Outdoor	Outdoor	Outdoor
Cloud-Based Location Solving	Yes		
GNSS	GNSS Scanning	Full	Full
Wi-Fi MAC Address Scanning	Yes		
Cell Tower Location	Yes	Yes	Yes
Accelerometer	Yes	Yes	Yes
Batteries	3 x AA Lithium	2 x D Lithium Thionyl Chloride (LTC)	
*Battery Life (Daily)	**10+ Years	**20+ Years	
*Battery Life (Movement-Based)	7 Years	**10+ Years	
*Battery Life (Hourly)	4.5 Years	**10+ Years	
Inputs / Outputs, Sensor Interfaces			1 x Analog Input, 6 x Digital Inputs, 2 x Switched Ground Digital Outputs, 1 x Ignition Digital Input, Switched Power Out, RS-232

* Battery life estimates are based on LTE-M/NB-IoT Connectivity and influenced by several factors including temperature, installation location 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.

** For battery life estimates over 10 years, please consider network technology availability and other factors such as battery manufacturer lifespan and self-discharge specifications.

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Oyster EDGE

LTE-M/NB-IoT

Ultra-rugged, Indoor/Outdoor battery-powered asset tracking device and Bluetooth® Gateway. Features cloud-based location solving for over 10+ years of battery life.

Standard IP67

Dimensions - 108 x 86 x 31 mm (4.25 x 3.39 x 1.22)

Indoor/Outdoor

GNSS, Wi-Fi AP MAC Address Scanning, and Cell Tower location for seamless indoor/outdoor asset management

Bluetooth® 5.2

Reports on nearby Bluetooth tags and sensors for affordable tagged asset management and sensor monitoring applications

'Deploy Once' Battery Life

Over 10+ years battery life on only 3 x AA user-replaceable batteries

Cloud-Based Location

Position calculations are handled in the cloud (versus on-device) for substantial power savings

Adaptive Tracking

Periodic or optional movement-based tracking - tracks assets throughout the day and/or when movement occurs, entering sleep mode when inactive to conserve power and data usage

Battery Life Alerts

"Battery Low" and "Battery Critical" alerts

Ultra-Rugged

IP67 rated housing ensures the device can withstand fine dust, high-pressure spray, and submersion for 30 minutes in 1m of water

Remora3

LTE-M/NB-IoT

Ultra-rugged, long-life battery-powered GPS asset tracking device and Bluetooth® Gateway featuring *20 years of battery life and tamper detect - **longest-lasting battery-powered device on the market**

'Deploy Once' Battery Life

Over 20 years battery life movement-based tracking, 2 years at most aggressive (second-by-second) tracking performance

Bluetooth® 5.2 Gateway

Reports on nearby Bluetooth tags and sensors for affordable tagged asset management and sensor monitoring applications

User-Replaceable Batteries

Uses off-the shelf 2 x D Lithium Thionyl Chloride (LTC) batteries for extreme temperature operation

Adaptive Tracking

Periodic or optional movement-based tracking - tracks assets throughout the day and/or when movement occurs, entering sleep mode when inactive to conserve power and data usage

Battery Life Alerts

"Battery Low" and "Battery Critical" alerts

Tamper Detect

Magnetic Tamper Detect

Ultra-Rugged

IP67 rated housing ensures the device can withstand fine dust, high-pressure spray, and submersion for 30 minutes in 1m of water

Standard IP67

Dimensions - 224 x 91 x 41 mm (8.82 x 3.58 x 1.61")

* For battery life estimates over 10 years, please consider network technology availability and other factors such as battery manufacturer lifespan and self-discharge specifications.

G120

2G or LTE-M/NB-IoT
Optional Iridium Satellite Hybrid

GPS tracking device and Bluetooth® Gateway with optional Iridium Satellite for global coverage with inputs/outputs, RS-232 Interface, and remote immobilization for fleet management, driver ID, driver safety and behavior monitoring, remote worker safety, theft recovery, and more

Real-Time Tracking

High-precision GPS/GLONASS tracking device wired to vehicles or equipment

Backup Battery

Internal Backup Battery in case of loss of power or tampering

Bluetooth Gateway

Bluetooth® 5.0 Gateway for tagged asset management and sensor monitoring

Inputs/Outputs

1 x Analog Input, 6 x Digital Inputs, 2 x Switched Ground Digital Outputs, 1 x Ignition Digital Input, Switched Power Out

RS-232 Interface

RS-232 Interface to connect optional Iridium Edge® Module or interface with controllers and sensors

Driver ID

Configure iButton®, RFID readers and Wiegand Interface for Driver ID

Driver Behavior

Accident and rollover detection, speeding, harsh braking, and more

In-Cab Alerts

Built-in Buzzer for in-cab alerts

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Accelerate Time to Value with Faster Integration

Digital Matter gateways support several industry-standard Bluetooth Low Energy formats out-of-the-box. Using any third-party tags that are iBeacon/Eddystone compliant allows for a simple plug-and-play solution.

Custom third-party tag formats are also supported to maximize the number of possible installation options for any use case. This is easily enabled by utilizing a pre-integrated device, or simply specifying the custom tag frame details which the gateway can search for.

Our gateways also support both active and passive scanning on all supported tag types, along with support for Bluetooth Low Energy coded scanning technology to best support use cases where long range transmission is required.

Sample Third-Party Bluetooth Integrations

Device	Air Pressure	Analog Input	Digital Input	Digital Output	Fuel Level	Approx. Location	Magnet (Reed Switch : Door Open/ Close)	Movement (Accelerometer)	Relative Humidity	Temperature	Tire Pressure
DryLink RH Tag									Yes	Yes	
DryLink Tag								Yes			
ELA AI	*	Yes			*		*	*	*	*	
ELA DI	*		Yes		*		*	*	*	*	
ELA DO				Yes**							
ELA ID						Yes					
ELA MAG							Yes				
ELA MOV								Yes			
ELA RHT									Yes	Yes	
ELA T										Yes	
Escort TD-BLE Probe					Yes					Yes	
Geobox Tire Pressure										Yes	Yes
Ingics iBS01 Basic / Temp						Yes			Yes	Yes	
Jaalee iBeacon						Yes		Yes			
Minew S1									Yes	Yes	
Nanolink BT40						Yes		Yes			
Ruuvi Tag	Yes							Yes	Yes	Yes	
Sentrius BT510							Yes	Yes		Yes	
Technoton DUT-E S7					Yes					Yes	

Integrating Third-Party Bluetooth® Tags and Sensors with Digital Matter Devices
Digital Matter does not supply third-party Bluetooth accessories. For a full list of integrations, or more information on integrating third-party Bluetooth accessories, visit our knowledge base.

Tables Notes
*ELA tags that have an analog input or digital input/output can support these use cases depending on sensor integrations
**This controller responds to many industrial and security applications such as alarm triggering, motor and PLC control, etc.

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It's Time to Build a Better IoT Asset Management Solution

Proven Expertise

We are global leaders in the asset tracking ecosystem as determined by ABI Research with over 1M+ devices designed, manufactured, and deployed across 120+ countries with over 1.5K endpoints and counting.

Multiple Location Technologies

GNSS, Wi-Fi AP MAC Address Scanning, Cell Tower location, and Iridium Satellite hybrid solutions for Indoor, Outdoor, and Global asset tracking applications.

Global Roaming

Supports automatic roaming between LTE-M and NB-IoT networks with minimal delay and marginal impact on battery life or performance (roaming SIM required).

Mobile or Stationary Gateways

Gateway devices can be placed on or wired to mobile assets or installed on walls, poles, or other pieces of equipment as a stationary solution.

Advanced Filtering

Smart filtering techniques allow our Gateways to detect specific Bluetooth accessories more efficiently, reducing cellular data usage and simplifying the integration overhead of needing to filter out unwanted tags on the end platform.

'Deploy Once' Battery Life

Reduce OPEX costs with industry-leading battery life and performance. Our battery-powered devices are engineered from the ground up to achieve maximum battery life with ultra-low power consumption.

Secure AES-256 Encryption

We implement comprehensive security protocols on our devices and software to protect against attacks on the integrity and confidentiality of your telematics data.

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Let's Get Started

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