Digicore
PARTNERS IN SAFETY

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.

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

'DeployOnce' 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 LifeAlerts

"Battery Low"and"Battery Critical"alerts

Ultra-Rugged

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

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®	Bluetooth 5.2 gateway reports nearby Bluetooth tags and sensors for affordable tagged asset management and sensor monitoring. Also supports beaconing.
SIM Size & Access	Internal Nano 4FF SIM

Batteries

User-ReplaceableBatteries	3xAA
Supported Battery Types	Alkaline Lithium Li Fe S2 (recommended for best performance) *Please dispose of Lithium batteries in a safe and responsible manner
Battery Life	Once Daily location updates – 10+years Movement-Based location updates– 7years Hourly location updates– 4.5years

Location

Chipset	Semtech LR1110
Constellation	Concurrent GPS /BeiDou
Cloud-Based Solver	Asset location is calculated in Digicore's Location Engine
Tracking Sensitivity	-134dBm autonomous /-141dBm aided
GNSS Assistance	GNSS almanac data for greater sensitivity and position accuracy
Low Noise Amplifier	GPS signals are filtered and boosted by a SAW filter and low-noise amplifier (LNA) allowing operation where other units fail
Cell TowerLocation	Cell tower fall back for positioning when there is no GNSS or Wi-Fi signal
Wi-Fi Positioning	Indoor asset location using Wi-Fi access point scanning (device does not connect to Wi-Fi)

Power

Input Voltage	3-5.5VDC
Sleep Current	<10uA* *Average current in lowest power configuration

Mechanics /Design

Dimensions	108 x 86 x 31mm (4.25 x 3.39 x 1.22")
Weight	157g (5.5 oz)
Housing	Ultra-Rugged IP67 Housing

Mechanics /Design (continued)

IP Rating	IP67 rated housing ensures device can withstand fine dust, high pressure spray, submersion for 30mins in 1m of water, and extreme temperatures
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 silver screws supplied.
Operating Temperature	-30°C to +60°C - For operation in extreme temperatures use Lithium Batteries
Cellular Antenna	Internal
GPS Antenna	Internal
Wi-Fi Antenna	Internal
3-Axis Accelerometer	3-AxisAccelerometer to detect movement, high G-force events, and more
Diagnostic LED	Diagnostic LED indicates operation status
Flash Memory	Stores records if device is out of cellular coverage. Storage capacity for over 10 days of 2-minute logging.
Speed and Heading	Scanning technology used on the Oyster Edge does not return speed and heading
On-Board Temperature	The device reports internal temperature which provides an indication of ambient temperature but may not always be precise

Smarts

Auto-APN	Auto-APN allows the device to analyse 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 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
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
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
Theft Recovery	Switch to Recovery Mode in the case of theft or loss to activate real time tracking for asset retrieval
Tip Detection & Rotation Counting	Axis angle reporting, tip detection and rotation counting (planned)

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

Integration

Third-Party Integration	HTTPS Web hook
Cloud-Based Solver	Digicore's Location Engine makes it easy to perform cloud based position solving and integrate data into any system
Configuration App	Configurable with DM Link Provisioning tool

Security

Data Security	Military-level AES-256 Encryption from device to OEM Server to protect the integrity and confidentiality of telematics data. Data forwarded to third-party systems is sent via HTTPS for end-to-end security.

Warranty

Manufacturer's Warranty	Two-year manufacturer's warranty

Certifications

Please contact our support team for a full list of compliance specifications and documentation for your region	Coming Soon

Warning: Please dispose of the unit correctly. Risk of explosion if the device is exposed to extreme high temperatures or fire.