NEW

OYSTER3 GLOBAL

Cellular 4G LTE Cat 1bis / 2G

Long-life and ultra-rugged battery-powered GPS device for global asset tracking applications

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

Track Anywhere

Cellular 4G Cat 1bis with 2G fallback enables seamless global asset tracking and management

2G Migration plan

Operates on current 2G networks with a migration path to 4G when/if 2G networks are shut down

'Deploy Once' Battery Life

8+ years on 3 x AA user-replaceable batteries with 'Battery Low' and 'Battery Critical' alerts

Adaptive Tracking

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

Ultra-Rugged

Waterproof and rugged IP68 Housing

Connectivity

Cellular Module	Ublox LENA R8 Modem operates on all major global 4G Cat 1bis and 2G bands Supported 4G Cat 1bis bands: B1, B2, B3, B4, B5, B7, B12, B20, B28, B38, B40, B41, B66
SIM Size & Access	Internal Nano 4FF SIM

Location

GNSS Module	Ublox LENA-R8001M10
Constellations	Concurrent GPS/QZSS, GLONASS, Galileo, BeiDou
Tracking Sensitivity	-148 dBm cold start / -159 dBm hot start
*Location Accuracy	~1m CEP, GPS, -130 dBm
GNSS Assistance	GNSS ephemeris 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 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	4 - 16 V DC
Sleep Current	<10uA* *Average current in lowest power configuration
Safety	Reverse Polarity Protection

Batteries

User-Replaceable Batteries	3 x AA. Batteries not included.
Supported Battery Types	Lithium (LiFeS2) Battery selection is very important. Follow this link to learn more. Please dispose of Lithium batteries in a safe and responsible manner.

* 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.

** 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	108 x 86 x 30 mm (4.25 x 3.39 x 1.18 in)
Weight	120g
Housing	Non-branded housing for optional white-labelling
IP/IK Rating	Ultra-rugged and waterproof IP68 ensures the device 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 operation status
Flash Memory	Store weeks of records if device is out of cellular coverage. Storage capacity for over 29 days of continuous 30-second logging.
Speed and Heading	Current speed and heading is reported with each position update
Onboard Temperature	The device reports internal temperature which provides an indication of ambient temperature

Smarts

Adaptive 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.
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
Onboard Geofencing	Geofences can be downloaded directly to the device for enhanced location-based actions and alerts. Maximum of 100 Geofences with up to 100 points per geofence.
Impact Detection	Configure impact-detection alerts when G-forces are exceeded by a user-defined threshold
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 optimize asset utilization
Sleep Mode	Stationary devices enter sleep mode until movement occurs to conserve battery life and optimize 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	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
Device Management Platform	Manage, monitor, configure, debug, update, and restart devices remotely from our cloud-based device management system

Integration

Third-Party Integration	TCP Direct or HTTPS Webhook

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 third-party systems is sent via HTTPS for end-to-end security.

Warranty

Manufacturer's Warranty	Two-year manufacturer's warranty. Exclusions apply.

Certifications

Please check our knowledge base for regulatory and network certifications