



# Connectivity

## LTE-M / NB-IoT

Nordic nRF9160 Modem operates on all major global LTE-M and NB-IoT bands.  
Supported LTE bands:

(supports roaming between networks - roaming SIM required)

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

## SIM Size & Access

Internal Nano 4FF SIM

# Batteries

## User-Replaceable Batteries

3 x AAA

## Supported Battery Types

Alkaline

\*Lithium (LiFeS2) - 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 - 5 years

Hourly location updates - 1.5 years

# Location

## GNSS

Sony CXD5605

## Constellation

Concurrent GPS, GLONASS, Galileo, QZSS

## Tracking Sensitivity

-147 dBm cold start / -161 dBm hot start

## GNSS Assistance

GNSS almanac and 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

# Power

## Input Voltage

3-5.5V

## Sleep Current

<10uA\*

\*Average current in lowest power configuration

# Mechanics / Design

## Dimensions

Standard - 85 x 63 x 24 mm (3.35 x 2.48 x .94")

Livestock Collar - 109 x 60 x 30 (4.29 x 2.36 x 1.18")

Snap Housing (Smallest Size, not IP67 rated) - 75 x 45 x 25 mm (2.95 x 1.77 x 0.98")

## Weight

80g

## Housing

Ultra-Rugged IP67 Housing. Non-branded housing for optional white-labeling.

# Mechanics / Design *(continued)*

IP Rating	IP67 rated housing ensures device can withstand fine dust, high-pressure spray, submersion for 30 mins 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. Collar housing available for securing device to livestock. Stainless steel screws supplied.
Operating Temperature	-30°C to +60°C - For operation in extreme temperatures use Lithium batteries
Cellular Antenna	Internal
GPS Antenna	Internal
3-Axis Accelerometer	3-Axis Accelerometer to detect movement, high G-force events
Diagnostic LED	Diagnostic LED indicates operation status
Flash Memory	Store weeks of records if device is out of cellular coverage. Storage capacity for over 2 weeks of 2-minute logging.
On-Board Speed and Heading	Current speed and heading is reported with each position update
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 analyze 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
Geofence Download to Device	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
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 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 & Rotation Counting	Axis angle reporting, tip detection and rotation counting (planned)

# Device Management

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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
Configuration App	Configurable with DMLink Provisioning tool

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# Integration

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Third-Party Integration	TCP Direct or HTTPS Webhook
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# Security

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

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Manufacturer's Warranty	Two-year manufacturer's warranty
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# Certifications

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Please visit [support.digitalmatter.com](https://support.digitalmatter.com) for a full list of compliance specifications and documentation for your region

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