FleetLogix

BT-310

LTE-M / NB-IoT

Compact and ultra-rugged battery-powered GPS asset tracker featuring 10+ years battery life

‘Deploy Once’ Battery Life

Over 10+ years battery life at once-daily location updates

User-Replaceable Batteries

Uses off-the-shelf 3 x AAA batteries

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

Ultra-rugged and weatherproof IP68, IK06 Housing

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
SIM Size & Access	Internal Nano 4FF SIM

Batteries

User-Replaceable Batteries	3 x AAA. *Batteries not included.*
Supported Battery Types	*Lithium (LiFeS2) - recommended for best performance *Please dispose of Lithium batteries in a safe and responsible manner
**Battery Life Estimates	Once Daily location updates – 10+ years Movement-Based location updates – 3 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
*Location Accuracy	~1m 2D RMS, GPS, -130dBm
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 - 84 x 63 x 24 mm (3.31 x 2.48 x 0.94") 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	Non-branded housing for optional white-labeling

Mechanics / Design *(continued)*

IP/IK Rating	Ultra-rugged and waterproof IP68 and IK06-rated housing ensures the BT-310 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. Collar housing available for securing device to livestock. Stainless steel screws supplied.
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
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

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

Integration

Third-Party Integration	TCP Direct or HTTPS Webhook

Security

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.

Warranty

Manufacturer's Warranty	Two-year manufacturer's warranty

Certifications

	LTE-M / NB-IoT - FCC, ISED, UKCA, CE, ACMA RCM, EMC, RoHS

*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.

**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.