

# ORCA Industrial GPS Asset Tracker

## LoRaWAN® connected GPS Tracker for Industrial Asset Management

TEKTELIC ORCA is an ideal solution for geolocating your assets in the field. This device provides GPS enabled near real-time satellite location tracking with LoRaWAN®.

- Shipping containers
- Pallets
- Railcars
- Industrial Transport
- Fleet Vehicles
- Industrial Equipment
- Preventative Maintenance
- Security & Theft Mitigation



### Technical and Functional System Specifications

#### General System Parameters

Operational Temperature	-40°C to +70°C
Protection Rating	IP67
Size	195 x 101 x 50 mm
Battery	2 D-Cell Batteries

#### LoRa Parameters

RF Power	22 dBm
RF Sensitivity	-137dBm (SF12, 125kHz)
ISM Band	All Global ISM Bands
Antenna	Internal
LoRa Device Class	Class A

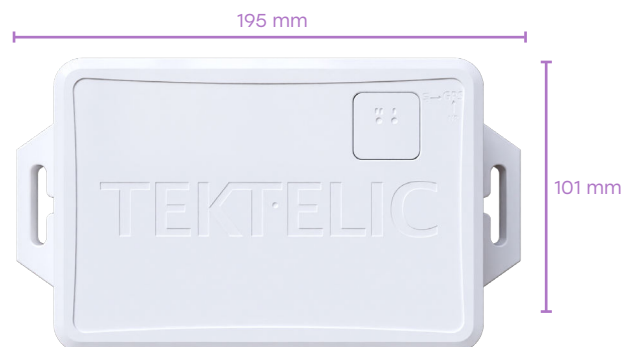
#### Regulatory Compliance

Safety	IEC 60950-1 (CE)
Regulatory	ETSI EN 300 220
	ETSI EN 301-489-1/-3
	FCC 15.247      FCC 15.209
	RSS-247      RSS-GEN

#### Key Features

- » 5 year Battery Life\*
- » Precise GPS
- » Data Transmission via LoRaWAN®
- » BLE (Optional)
- » All Global ISM bands
- » Rugged IP67 Design
- » Accelerometer
- » Internal Antenna

\*With the following operating conditions: 73 uplinks per day consisting of 1 battery report, 24 periodic GNSS location reports, 24 accelerometer event-based GNSS location reports, plus 24 periodic BLE scan reports.



# SPARROW Enterprise Asset Tracker

## LoRaWAN® and BLE Device for Indoor Asset Tracking

**TEKTELIC SPARROW** is an ideal solution for locating, tracking and managing assets. This device combines the long range, low power benefits of LoRaWAN® with the universal availability and reliability of Bluetooth Low Energy (BLE). The SPARROW can be deployed as both a tracker, or a BLE Beacon for your asset tracking solution

- Hospitals & Medical Facilities
- Retail
- Manufacturing Facilities & Warehouses
- Multi-Building Campuses
- Schools
- Office Buildings

### Technical and Functional System Specifications

#### General System Parameters

Operational Temperature	-40°C to 70°C
Size	65 x 24.5 x 26 mm
Battery	AA LTC

#### LoRa Parameters

RF Power	15 dBm
RF Sensitivity	up to -137dBm (SF12, 125kHz)
ISM Band	All Global ISM Bands
Antenna	Internal
LoRa Device Class	Class A

#### Regulatory Compliance

Safety	IEC 60950-1 (CE)
Regulatory	ETSI EN 300 220
	ETSI EN 301-489-1/-3
	FCC 15.247      FCC 15.209
	RSS-247      RSS-GEN

Specifications subject to change without notice.



### Key Features

- » 5 Year Battery Life - Tracker Mode
- » 16 Month Battery Life - Beacon Mode
- » Accelerometer
- » Bluetooth Low Energy Functionality
- » Data Transmission via LoRaWAN™ and BLE
- » All Global ISM Bands
- » Small Form Factor for Diverse Deployments
- » Easily Integrated into LoRaWAN™ Networks
- » Internal Antenna

# PELICAN Asset Tracker

## Rugged LoRaWAN® and BLE Device for Asset Tracking

PELICAN is an ideal device for locating, tracking and managing assets in difficult RF environments. This device combines the long range, low power benefits of LoRaWAN® with the universal availability and reliability of Bluetooth Low Energy (BLE). The PELICAN can be deployed as both a tracker, or a BLE Beacon for your asset tracking solution.

- Construction Sites
- Warehouses
- Manufacturing Facilities
- Multi-Building Campuses



## Technical and Functional System Specifications

### General System Parameters

Operational Temperature	-40°C to +70°C
Ingress Protection	IP67
Size	67 x 41 x 32 mm
Battery	C-Cell

### Regulatory Compliance

Safety	IEC 60950-1 (CE)
Regulatory	ETSI EN 300 220
	ETSI EN 301-489-1/-3
	FCC 15.247      FCC 15.209
	RSS-247      RSS-GEN

### LoRa Parameters

RF Power	15 dBm
RF Sensitivity	up to -137dBm (SF12, 125kHz)
ISM Band	All Global ISM Bands
Antenna	Internal
LoRa Device Class	Class A

## Key Features

- » 15 Year Battery Life - Tracker Mode
- » 18 Month Battery Life - Beacon Mode
- » Accelerometer
- » Bluetooth Low Energy Functionality
- » Data Transmission via LoRaWAN® and BLE
- » All Global ISM Bands
- » Small Form Factor for Diverse Deployments
- » Easily Integrated into LoRaWAN® Networks
- » Internal Antenna

### BLE Beacon Parameters

Tx Power	Up to 0 dBm
Battery life	18 Month
BLE Protocols	iBeacon, Eddystone UID, Eddystone TLM

Specifications subject to change without notice.

# PELICAN Ex Asset Tracker

## LoRaWAN® and BLE Device for Outdoor Asset Tracking

TEKTELIC's PELICAN Ex is an ideal outdoor rated ATEX certified solution for locating, tracking, and managing assets in difficult RF environments where an explosive atmosphere may be present. The PELICAN Ex can be deployed as a tracker or a BLE Beacon for your asset tracking solutions.

- Industrial/ Oil & Gas Sites
- Mining
- Hazardous Worker Safety
- Processing Plants



### Technical and Functional System Specifications

#### General System Parameters

Operational Temperature	-20°C to +50°C
Ingress Protection	IP67
Size	68 x 42 x 33 mm (excluding mounting features)
Battery	Lithium Thionyl Chloride C-cell

#### Regulatory Compliance

Safety	EN/IEC 62368-1 (CE)
Radio	ETSI EN 300 220 ETSI EN 301-489-1/-3
ATEX	EN IEC 60079-0 EN 60079-11 <Ex> II 2G Ex ia IIC T4 Gb <Ex> II 2D Ex ia IIIC T135°C Db

Specifications are in progress and subject to change\*

#### LoRa Parameters

RF Power	15 dBm
RF Sensitivity	up to -137dBm (SF12, 125kHz)
ISM Band	All Global ISM Bands
Antenna	Internal
LoRa Device Class	Class A

### Key Features

- » Certified for ATEX Zone 1/21 locations
- » 5 Year Battery Life - Tracker Mode
- » 18 Month Battery Life - Beacon Mode
- » Accelerometer
- » Data Transmission via LoRaWAN® and BLE
- » Internal Antennas
- » All Global ISM Bands
- » Small Form Factor for Diverse Deployments
- » Bluetooth Low Energy Functionality
- » Easily Integrated into LoRaWAN® Networks

#### BLE Beacon Parameters

Tx Power	Up to 0 dBm
Battery life	18 Month
BLE Protocols	iBeacon, Eddystone UID, Eddystone TLM

# STORK Asset Tracker

## Rugged LoRaWAN® Device for Asset Tracking

STORK is ideal for tracking vehicles, equipment, and other assets in any environment. Versatile mounting options allow you to attach the STORK directly to pallets and other equipment to easily and reliably track assets on that are on the move. Utilizing the low power capabilities of LoRa Edge™, STORK features LoRaWAN® long-range connectivity, Low-Power GNSS, BLE and WiFi positioning and extended battery life ensuring you always have the most up-to-date location of your valuable assets.

- Construction Sites
- Warehouses
- Manufacturing Facilities
- Multi-Building Campuses



### Technical and Functional System Specifications

#### General System Parameters

Operational Temperature	-40°C to +70°C
Ingress Protection	IP67
Size	75 x 43 x 41mm
Battery	C-Cell
External Power	12V

#### Regulatory Compliance

Safety	IEC 62368-1 (CE)
Regulatory	ETSI EN 300 220
	ETSI EN 301-489-1/-3
	FCC 15.247    FCC 15.209
	RSS-247    RSS-GEN

#### LoRa Parameters

RF Power	15 dBm
RF Sensitivity	-132 dBm (NA) -139 dBm (EU)
ISM Band	All Global ISM Bands
Antenna	Internal
LoRa Device Class	Class A

### Key Features

- » 5+ Years Battery Life
- » Optional 12V External Power
- » Accelerometer
- » Bluetooth Low Energy Functionality
- » GNSS Scanning for Outdoor Tracking\*
- » BLE & Wi-Fi Scanning for Indoor Tracking\*
- » Rugged IP67 Design
- » All Global ISM Bands
- » Small Form Factor for Diverse Deployments
- » Easily Integrated into LoRaWAN® Networks
- » Internal Antenna
- » All Global ISM Bands

\*Requires integration with a compatible geolocation platform

#### Geolocation Options

BLE	iBeacon, Eddystone UID, Eddystone TLM
GNSS (Low Power)	GPS, BeiDou, geostationary
Wi-Fi MAC address	802.11 b/g/n

Specifications subject to change without notice.

# SEAL Ex Wearable GPS Tracker

## ATEX Rated LoRaWAN® connected GPS Tracker for Locating Personnel

The **SEAL Ex** is an ideal solution for tracking your personnel working remotely in the field in difficult RF environments requiring ATEX Zone 1 certification where combustible gases, vapors or dusts may be present. The rugged IP67 rated and ATEX Zone 1 certified sensor is designed for the most demanding installations, with an operating temperature range of -20 to +52 °C. SEAL Ex Provides up to 11 months of battery life. SEAL Ex is designed with fall and impact detection for enhanced worker safety. The SEAL Ex wearable Tracker seamlessly integrated with TEKTELIC's End IoT solution.



### Technical and Functional System Specifications

#### General System Parameters

Operational Temperature	-20°C to +52°C
Protection Rating	IP67
Size without safety clip*	104 x 70 x 34 mm
Size with safety clip*	104 x 70 x 56 mm
Battery	2x AA Batteries
Battery Life	11 months

#### LoRa Parameters

RF Power	15 dBm
RF Sensitivity	-137dBm (SF12, 125kHz)
ISM Band	All Global ISM Bands
Antenna	Internal
LoRa Device Class	Class A

#### Regulatory Compliance

Safety	EN IEC 62368-1:2020
	IEC 62368-1
Regulatory	ETSI EN 300 220-1/2
	ETSI EN 301-489-1
ATEX Specification	EN IEC 60079-0:2018
	EN 60079-11:2012
ATEX Marking	<Ex> II 2G Ex ia IIC T4 Gb

Specifications are in progress and subject to change\*

### Key Features

»	Fall Detection
»	Elevation Detection
»	Optional Harness Detection
»	Precise GPS & Integrated BLE
»	GNSS Datalogging
»	ATEX Zone 1 Certification
»	Data Transmission over LoRaWAN®
»	Event-Based Startup
»	Geofencing Capabilities
»	Audio & Visual Alarms
»	11 Months Battery Life
»	Rugged IP67 Design

#### GNSS Features

Position Accuracy	5 m
TIFF (Time to First Fix)	Cold Start - 26 Seconds
	Hot Start - 1 Second
Sensitivity	-164 dBm tracking and navigation
	-160 dBm reacquisition
	-148 dBm cold start
	-157 dBm hot start

# SEAL Wearable GPS Tracker

## LoRaWAN® connected GPS Tracker for Locating Personnel

SEAL is an ideal solution for tracking your personnel working remotely in the field. This device provides GPS enabled, near real-time satellite location tracking with LoRaWAN®. The rugged IP67 design allows for operation in diverse deployment environments, with an operable temperature range of -20°C to +60°C and BLE integration for continued tracking indoors. SEAL provides up to 15 months of battery life. SEAL is designed to identify fall and impact detection for enhanced worker safety. The SEAL wearable Tracker is seamlessly integrated with TEKTELIC's End-to-End IoT solution.



### Technical and Functional System Specifications

#### General System Parameters

Operational Temperature	-20°C to +60°C
Protection Rating	IP67
Size without safety clip*	104 x 70 x 34 mm
Size with safety clip*	104 x 70 x 56 mm
Battery	3x AA (LiFeS2)
Battery Life	15 Months

\* Excluding belt & strap clips

#### LoRa Parameters

RF Power	14 dBm
RF Sensitivity	-137dBm (SF12, 125kHz)
ISM Band	All Global ISM Bands
Antenna	Internal
LoRa Device Class	Class A

#### GNSS Features

Position Accuracy	5 m
TTFF (Time to First Fix)	Cold Start - 30 Seconds
	Hot Start - 1 Second
Sensitivity	-167 dBm tracking and navigation
	-160 dBm reacquisition
	-148 dBm cold start
	-159 dBm hot start

#### Key Features

- » Fall Detection
- » Elevation Detection
- » Optional Harness Detection
- » Precise GPS & Integrated BLE
- » GNSS Datalogging
- » Data Transmission over LoRaWAN
- » Event-Based Startup
- » Geofencing Capabilities
- » Audio & Visual Alarms
- » 15 Months Battery Life
- » Rugged IP67 Design

#### Regulatory Compliance

Safety	(CE) EN IEC 62368-1:2020 (Ed. 3)
Regulatory	ETSI EN 300 220
	ETSI EN 301-489-1/-3
	FCC 15.247      FCC 15.209
	RSS-247      RSS-GEN



# CHICKADEE - Wearable Badge Tracker

## Outdoor and Indoor Personnel and Asset Tracking

CHICKADEE is a cutting-edge LoRaWAN® device designed to revolutionize the way you keep track of your people and assets. Utilizing the low-power positioning capabilities of LoRa Edge™, the CHICKADEE badge offers GPS, BLE and Wi-Fi positioning. CHICKADEE is ideal for tracking personnel and valuable assets at any jobsite or while in transit.

- Construction Sites
- Warehouses
- Manufacturing Facilities
- Multi-Building Campuses



### Technical and Functional System Specifications

#### General System Parameters

Operational Temperature	-10°C to +55°C
Ingress Protection	IP67
Size	96 x 60 x 12 mm
Battery	Custom Rechargeable Battery
External Power	12V

#### Regulatory Compliance

Safety	IEC 62368-1 (CE)
Regulatory	ETSI EN 300 220
	ETSI EN 301-489-1/-3
	FCC 15.247      FCC 15.209
	RSS-247      RSS-GEN

#### LoRa Parameters

RF Power	15 dBm
RF Sensitivity	-132 dBm (NA) -139 dBm (EU)
ISM Band	All Global ISM Bands
Antenna	Internal
LoRa Device Class	Class A

### Key Features

- » 6+ Months Battery Life (Rechargeable)
- » Optional 12V External Power
- » Accelerometer
- » Passive RFID
- » Bluetooth Low Energy Functionality
- » GPS & GNSS Scanning for Outdoor Tracking\*
- » BLE & Wi-Fi Scanning for Indoor Tracking\*
- » Configurable Button for Event-Based Uplinks
- » Badge Form Factor
- » Easily Integrated into LoRaWAN® Networks
- » Internal Antenna
- » All Global ISM Bands

\*Requires integration with a compatible geolocation platform

### Geolocation Options

BLE	iBeacon, Eddystone UID, Eddystone TLM
GPS	GPS (Max10), GNSS (LR1110), BeiDou, geostationary
Wi-Fi MAC address	All Global ISM Bands

\*Specifications subject to change without notice