

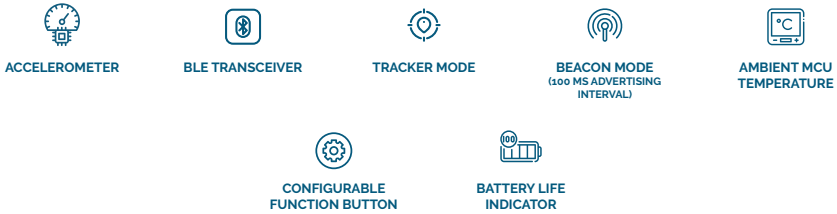
TEKTELIC SPARROW

LoRaWAN® and BLE Device for Indoor Asset Tracking

TEKTELIC's SPARROW is an ideal solution for locating, tracking, and managing assets across a wide range of environments. It combines the long-range, low-power benefits of LoRaWAN® with the universal availability and reliability of Bluetooth® Low Energy (BLE). The SPARROW can operate as either a tracker or a BLE beacon, offering flexible deployment options for diverse asset tracking applications. Its built-in state machine enables intelligent reporting behavior, providing more frequent updates when the asset is in motion and reducing reporting intervals when stationary to optimize battery life.



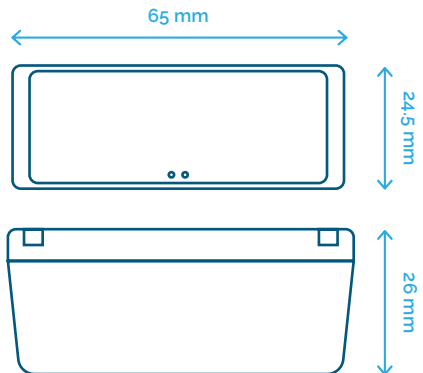
Sensing Functions



Features

- ✓ **5+ year battery life*** in Tracker Mode and **16+ months battery life*** in Beacon Mode
- ✓ **Quick and easy device onboarding & data viewing** using TEKTELIC LeapX™ mobile application
- ✓ **Dual-mode BLE operation** enabling **Tracker Mode** for scanning nearby devices and **Beacon Mode** for broadcasting presence
- ✓ **Rapid deployment** for scalable commercial and enterprise installations
- ✓ **Intelligent state-machine reporting**, delivering higher update rates during motion and reduced reporting when stationary to optimize battery life
- ✓ **Remaining battery life reported** in days
- ✓ **Flexible mounting** using adhesive, screws, or straps for quick installation on a wide range of asset types
- ✓ **User-configurable parameters and thresholds** allow the device to be tailored to a wide range of monitoring applications
- ✓ **Compatible with standard LoRaWAN® gateways and network servers** for broad interoperability
- ✓ TEKTELIC Kona Atlas™ support for payload encoding and decoding
- ✓ TEKTELIC Locus™ integration for centralized device, data, and fleet management

* Actual battery life varies based on configuration, data rate, and operating temperature.



Technical and Functional System Specifications

General System Parameters		
Operational Temperature	-40°C to 70°C	
Storage Temperature	-5° to 45°C	
Operational Relative Humidity	5% - 95% Non-Condensing	
Ingress Protection	IP30	
Size	65 x 24.5 x 26 mm	
Weight	45.8 g (28.3 g enclosure + 17.5 g battery)	
Battery	1 x AA-Cell LTC	
Battery Life		
Reporting Period - 60 min @SF7 (Tracker)	5.5 Years	
Reporting Period - 60 min @SF10 (Tracker)	3.5 Years	
Reporting Period - 24 hrs @ SF10 (Beacon)	16 Months	
Wireless Parameters	LoRa	BLE
RF Power (Max)	15 dBm	0 dBm
RF Sensitivity	-137 dBm (SF12, 125 kHz)	125 kbps: -103 dBm 500 kbps: -98 dBm 2 Mbps: -91 dBm
Channel Plans	EU868, US915, AU915, AS923-1,-2,-3,-4, IN865, KR920	2.4GHz ISM
Antenna	Internal	Internal
LoRa Device Class	Class A	N/A
Specification Version	1.0.4	5.2
Sensor Specifications		
Accelerometer Sensitivity	Sample rate: 1, 10, 25, 50, 100, 200, 400 Hz Measurement range: +/-2, +/-4, +/-8, +/-16 g Precision: 16, 32, 64, 192 mg	
BLE Protocols	iBeacon, Eddystone UID, Eddystone TLM	
Default BLE Advertising Interval	100 ms	
Certifications & Compliance		
Regulatory	FCC, ISED, CE, CE (RED)	
Product Safety	IEC 62368-1	
Environmental	RoHS	

TEKTELIC Communications is a premier supplier of complete LoRaWAN® IoT solutions. Our end-to-end systems combine network infrastructure, devices, and applications to enable easy, fast, and cost-effective deployment for the most demanding IoT challenges.