TEKTELIC CHICKADEE

LoRaWAN® Wearable Personnel Badge Tracker

The **TEKTELIC CHICKADEE** is a compact, wearable **LoRaWAN® badge tracker** designed for reliable indoor and outdoor tracking of personnel and valuable assets. Leveraging low-power positioning technologies, including **Low Power GNSS (LPGNSS), GNSS, Bluetooth® Low Energy (BLE), and Wi-Fi scanning**, CHICKADEE enables flexible geolocation across diverse environments. With a rugged IP67 design, rechargeable battery, and badge-style form factor, it delivers scalable, cost-effective visibility for workforce safety, asset tracking, and operational efficiency across industrial and enterprise applications.

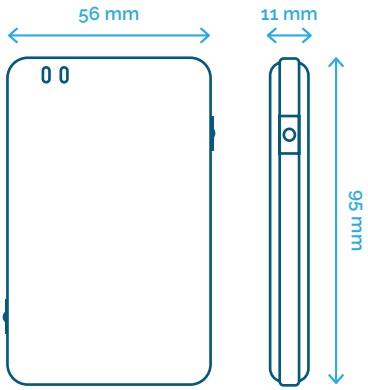
IP 67

Sensing Functions

- LPGNSS RECEIVER
- GNSS RECEIVER
- WI-FI RECEIVER
- BLUETOOTH LOW-ENERGY (BLE) TRANSCEIVER
- ACCELEROMETER
- AMBIENT TEMPERATURE (MCU THERMOMETER)
- BATTERY GAUGE

Features

- **Reachargeable battery** for portable and wearable operation with 6+ months battery life*
- **Optional 12V external power** support for fixed or extended-use installations
- **Outdoor geolocation** support using **Low-power GNSS** or **GNSS** for accurate asset and personnel tracking
- **Indoor positioning** support using **Bluetooth® Low Energy (BLE)** and **Wi-Fi scanning** for location awareness
- **Cloud Assisted** positioning for efficient location reporting
- **Passive RFID support** for badge identification and access use cases
- **Badge-style, lightweight form factor** designed for comfortable daily wear
- **Compatible with standard LoRaWAN® gateways and network servers** for broad interoperability
- **Quick and easy** device **onboarding & data viewing** using TEKTELIC **LeapX™** mobile application
- TEKTELIC **Kona Atlas™ support** for payload encoding and decoding
- **Locus™ integration** for centralized device, data, and fleet management
- **Rapid deployment** for scalable industrial asset-tracking applications



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

Technical and Functional System Specifications

General System Parameters		
Operational Temperature	-10˚C to 55˚C	
Storage Temperature	-10˚ to 60˚C	
Operational Relative Humidity	5% - 95% Non-Condensing	
Ingress Protection	IP67	
Size	95 x 56 x 11 mm	
Weight	84 g	
Battery	Internal non-replaceable rechargeable Lithium-Ion polymer	
Power input	USB-C (5 V, 300 mA) or charging contacts (6 to 15 V d.c., 0.3 A maximum)	
Battery Life		
Default Reporting Period* @SF7	6 Months	
Default Reporting Period* @SF10	5 Months	
Wireless Parameters	**LoRa**	**BLE**
RF Power (Max)	14 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	5.3
Sensor Specifications		
GNSS Features	2.5 m position accuracy** (CEP 50)	
	GPS L1 + GPS geostationary SBAS: EGNOS and WAAS	
	BeiDou B1 + BeiDou geostationary GEO/IGSO	
Wi-Fi Compatibility 802.11b/g/n	802.11b/g/n	
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 Sensitivity (0.1% BER)	125 kbps: -103 dBm 500 kbps: -98 dBm 2 Mbps: -91 dBm	
Certifications & Compliance		
Regulatory	FCC, ISED, CE (RED)	
Product Safety	IEC 62368-1	
Environmental	RoHS	

*Default reporting behavior is: 1 geolocation report per 60 mins (while not moving), per 10 mins (while moving), per 4 mins (while in emergency)
**Under open sky conditions

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.

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