

# UWB Badge Tracker

The Lansitec UWB Badge Tracker utilizes both LoRaWAN and UWB technologies for high-precision indoor location (up to 10 cm). By measuring distance from nearby UWB anchors and forwarding that data over LoRaWAN, the badge's position is calculated on the server side. With a compact, lightweight design and a 600mAh rechargeable battery, this tracker is ideal for monitoring personnel, vehicles, or assets in environments where real-time, highly accurate positioning is crucial.

### Indoor Tracking Precision (10 cm)

Delivers near real-time, ultra-precise location data for enhanced security and asset management.

### Geo-Fencing

Create virtual boundaries and receive alerts whenever the badge crosses them.

### Adjustable Upload Frequency

Optimize power usage and data granularity to suit different operational needs.

### Wide Operating Temperature

Functions reliably between -10°C and +65°C.

### Rechargeable Battery

A 600mAh Li-ion battery charges via Micro USB for convenient reuse.

### LoRaWAN Connectivity

Transmit distance data over long ranges (>1.5km urban) with low power consumption.

### FOTA over Bluetooth

Update firmware without physical intervention, ensuring continuous performance improvements.



## SCENARIO



**VEHICLE TRACKING**

Monitor fleet location in real-time for better scheduling, route optimization, and quick response to potential safety issues.



**FACTORY ASSET TRACKING**

Track the movement of tools, machinery, and raw materials indoors with precise location data, reducing losses and downtime.



**PUBLIC SPACE MANAGEMENT**



**PERSONNEL TRACKING**

Oversee crowds or high-value equipment in places like airports, malls, or event venues. Enhance security and visitor experience with accurate positioning.

Safeguard staff by monitoring their positions in restricted or hazardous areas. Receive alerts for unauthorized entries, improving security and emergency response.

## SPECIFICATIONS

### LoRaWAN Connectivity

<b>Activation Mode</b>	OTAA or ABP
<b>LoRaWAN Protocol</b>	LoRaWAN 1.0.2B
<b>LoRaWAN Band</b>	US915, AU915, EU868, AS923, LA915, RU864, KR920, IN865, KZ865, CN470
<b>LoRa TX power</b>	0 to 20dBm
<b>High TX Power Option</b>	Max. 30dBm and -150dBm receiving sensitivity
<b>LoRa Sensitivity</b>	-139dBm @SF12, BW 125kHz, 434MHz/470MHz -137dBm @SF12, BW 125kHz, 868MHz/915MHz
<b>Access Quantity</b>	>500 in one LoRaWAN gateway
<b>LoRa Communication Distance</b>	>1.5km in the urban area
<b>Encryption</b>	AES128

### UWB

Regions	Europe	US	Japan	S.Korea	Singapore	China
<b>Frequency Band</b>	6.0 to 10.6 GHz	3.1 to 10.6 GHz	7.25 to 10.25 GHz	7.2 to 10.2 GHz	3.4 to 10.6 GHz	6.0 to 9.0 GHz
<b>Receiving Range</b>	Up to 23m					
<b>Max. Number of Anchors Supported</b>	8					

### Physical Parameters

<b>Dimension</b>	95*61*7mm
<b>Ingress Protection</b>	N/A
<b>Operating Temperature</b>	-10°C ~ +65°C
<b>Storage Temperature</b>	-20°C ~ +80°C
<b>Operating Humidity</b>	5% ~ 95% (non-condensing)
<b>Housing Material</b>	ABS
<b>Weight</b>	28g

### Power

<b>Standby Current</b>	5µA
<b>Switch</b>	Support
<b>Status LED</b>	Support

<b>Buzzer</b>	Support
<b>Battery</b>	Li-ion rechargeable battery 600mAh
<b>Charging Method</b>	Micro USB

### Battery Life

When the tracker is still, it will enter low-power mode

Number of Trackers Supported	64 units	192 units	512 units
<b>Anchor Battery Life @ 76000mAh</b> 10s advertise interval	18 years	10 years	4.8 years
<b>Tracker Battery Life @ 600mAh</b> 60s report interval	37 days	32 days	25 days
<b>Container &amp; Asset Management Tracker Battery Life @ 8000mAh</b>	16 months	13 months	11 months

### Functions

<b>Adjustable Position Report Interval</b>	5s x n (1 to 65536)
<b>Heartbeat Report Interval</b>	30s x n (1 to 65536)
<b>FOTA over Bluetooth</b>	Support
<b>Multiple Bluetooth gateway LoRaWAN report synchronization</b>	Sync the clock and LoRaWAN report
<b>TDMA</b>	Support
<b>Bluetooth Data Compression</b>	Support
<b>Configurable Bluetooth data filter and payload report</b>	Filter any data bytes in a Bluetooth payload and report any via LoRaWAN

### ORDERING INFORMATION

Product Description	Part Number
UWB Badge Tracker, LoRaWAN, BLE5.0, 95*61*7mm, Li-ion 600mAh	100-000U3
<b>Certification</b>	CE, FCC