



# U4B LocoTag (BLE/UWB).



## Product Highlights.

- Small, covert and easy to install
- Long battery life - up to 5 years
- Accurate (sub 1m), near-real time localisation
- Communicates every 10 seconds
- Up to 80m range
- Uses proprietary protocol

## How the system works.

U4B LocoTags have been developed to work alongside the SystemLoco tracking and monitoring devices. The U4B LocoTag communicates to System Loco LocoHubs via a combination of BLE and UWB messages. The System Loco UWB LocoHubs provide a self-forming network that enables TDOA calculations to be completed for accurate (near-real-time) positioning. The location results are communicated by the System Loco LocoHubs to the Loco Server where they can be displayed on a floorplan view within the LocoAssets Web Portal.

The reporting interval of the U4B LocoTags (BLE/UWB) can be configured. For 5-year operation, the tags are configured to communicate a BLE broadcast every 10 seconds, and a UWB timing message every 30 seconds.

LocoAware enables you to view the location and easily configure system level behaviour based upon events such as U4B LocoTag presence/absence for different business needs. The same controls are accessible to 3rd party applications via JSON API to the LocoServer.

## Installation and asset association.

Installation is simple. The U4B LocoTag has a 3M tape adhesive backing; it can be adhered to the asset or fastened with tie-wraps, using the U4 Backplate accessory.

Each LocoTag has a unique identifier that is presented as a number and a barcode on its label. Association is completed by scanning this barcode and entering details regarding the asset. This can be completed directly on the LocoAware Web Portal or via the 'Loco Assets' mobile application. Once associated, LocoAware allows the user to search for a type of asset, or for a specific asset.

## Design considerations.

The system has been developed with end-to-end security in mind and protection against replay and masquerade attacks are provided as standard. Each U4B LocoTag has a unique key programmed at manufacture and all communication is authenticated.

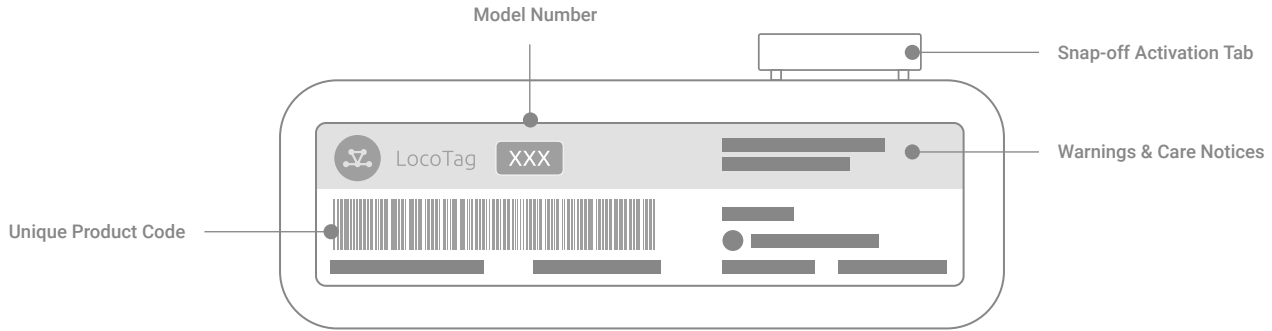
## Applications.

### Asset monitoring:

U4B LocoTag (BLE+UWB) allows assets to be accurately located down to sub metre accuracies.



# Technical Specifications.



## Communication

<b>UWB</b>	Authenticated proprietary protocol
<b>BLE</b>	Authenticated BLE discoverable
<b>NFC</b>	Authenticated proprietary protocol

## Sensing capabilities

<b>Sensing capabilities include:</b>	Temperature (internal)
	Accelerometer (internal)

## LocoTag reporting

<b>Range</b>	20m (indoors)
	80m (outdoors)
<b>Number of tags</b>	Up to 2,000 tags per reader for BLE
	Up to 1,000 for UWB
<b>Reporting level</b>	Factory configurable

## Battery

<b>880mAh</b>	Primary battery (non-replaceable)
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## Communication

<b>Sleep</b>	0.001 mA (average)
<b>Reporting</b>	120 mA (average)
<b>Reporting period</b>	sub 0.2 ms

## Mechanical Characteristics

<b>Dimensions (LxWxH)</b>	75x34x7 mm
<b>Weight</b>	25 gr
<b>Material</b>	PC+ABS (recyclable casing)
<b>Colour</b>	Black

## Environmental

<b>IP rating</b>	65
<b>Storage temperature</b>	-30 to 85°C
<b>Operating temperature</b>	-25 to 65°C

## Certifications

CE, ROHS, FCC

## Part numbers

<b>U4B</b>	UWB + BLE
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## Related Products

- LocoHub Z1U
- LocoSolver
- LocoGateway
- U4B Backplate
- LocoTrack HG\* Series