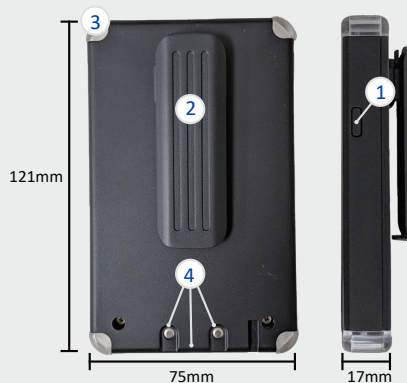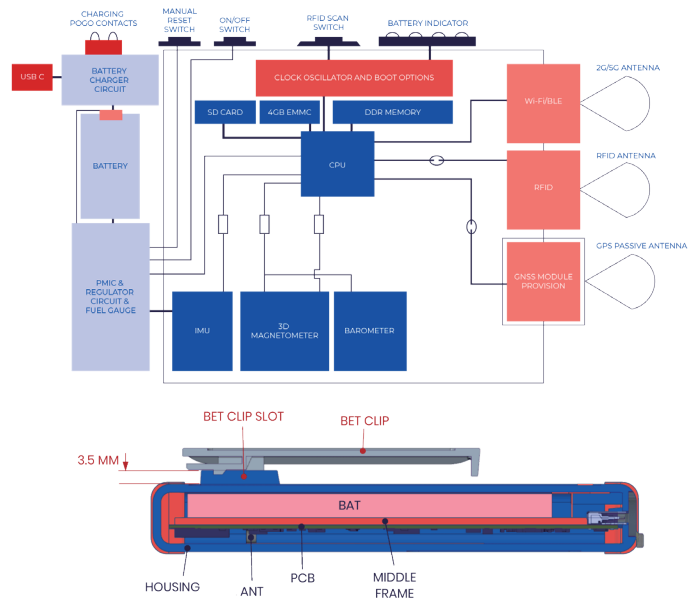# VENUE Tag:

Positioning Hardware Designed for VENUE Indoor Positioning Software

LOW COST. OPTIMIZED FOR VENUE PERFORMANCE.

VENUE Tag is a custom tracking tag for people and machines. VENUE tag is lower cost & higher accuracy in comparison to a mobile phone.

Useful for applications where a mobile phone is not already in-use or not allowed for security purposes. Optimized for indoor tracking and has extended battery life.

1	Button for user interaction - Power, RFID scanning, etc.
2	Removable belt clip
3	Status LED/Bumpers - provides extra drop protection and displays different colours for monitoring the device status
4	USB-C/charging nodes for charging, firmware updates

PRELIMINARY SPECIFICATIONS

Attribute	
Size	121x75x17mm
Weight (approx.)	160g
Battery Life (may improve during development	10 hrs. under mixed use (50/50 motion/stopped) 8 hrs. when always in motion
Charging	USB-C Charging - single device with USB-C cable, or 6 devices in charging cradle (sold separately)
Charge Time	6 hours or less (designed for long lifespan)
Sensors	Wi-Fi/BLE IMU Magnetometer Barometer RFID (optional) GNSS (optional)
Firmware	Customer linux-based firmware (not Android)
Dust and Water Protection	IP53 rated
Other Features	OTA Updates Button for user interaction - Power, RFID scanning, etc. USB-C port Optional Belt Clip Supports Venue Survey
Certifications	FCC, TELEC (JP)
Estimated Product Lifespan	7200 hrs. runtime or 3 years
Included	VENUE Tag, Belt Clip, 1m USB-A to USB-C cable

USE CASE SUPPORT

Floor Transitions:

1. Stairs
2. Escalators
3. Elevators
4. Conveyor Belts

Pedestrian Modes:

1. Handheld
2. Pocket (Shirt/Pants)
3. Dangling/Swinging
4. Call Mode
5. Chest Harness
6. Belt Clip

Vehicle Modes:

1. Forklifts and Vehicles
2. Robots

Pedestrian Positioning Mode	Average Accuracy*
Geomagnetic, Wi-Fi/Bluetooth, Map-matching	1-2 meters
Geomagnetic + Wi-Fi/Bluetooth	1-3 meters
Bluetooth only	3-7 meters (depends on beacon placement density)
Wi-Fi only	7-10 meters

Time	Data Consumption (1 Hz)
1 sec.	321 B
1 Hour	1 MB
1 Day (8 hrs.)	9 MB

*These numbers are based on a typical venue. Results may vary.

NEW

Map-matching has also been added to improve position accuracy and stability. This requires a vector map of the venue.