Brilliant IoT TB1000-w

Product Overview

TB1000-w is a UWB high-precision positioning wristband tag introduced by Brilliant IoT. The tag adopts lightweight wristband design with simple appearance and uses built-in omnidirectional antenna and rechargeable lithium battery, so it boasts light weight and is comfortable to wear. It supports built-in IC card function and can be extended to access control, consumption and other scenarios, as well as suitable for industry, justice, construction, medical care and elderly care and other diversified scenarios.

The TB1000-w positioning tag is equipped with Brilliant IoT positioning technology, which can operate stably under complex conditions such as multipath reflections by means of intelligent anti-jamming algorithms and multipath suppression mechanisms, making it an ideal choice for sectors such as industry, judiciary, and building construction.

Product Appearance

Product Features

1. High-precision Positioning

a. Integrates UWB high-precision positioning technology, based on UWB positioning technology of the Brilliant IoT - an industry leader with over 10 years of experience

b.Based on Brilliant IoT positioning technology, it remains providing sub-meter positioning accuracy in complex metal scenes

c. Positioning frequency up to 30Hz

d. Stable trajectory without interference

2. IP Rating Protection

IP67-rated dust and water protection

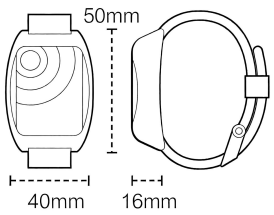
3. Intelligent Interaction Design

a. Support LED flashing/beeping/vibrating combined alerts

b. One-touch SOS alarm, rapid reporting of emergencies

c. Compatible with RFID, universal access control/consumption system, one card with multi-purpose applicance

Technical Specifications

Hardware Specifications	
Dimensions	Main body 50mm × 40mm × 16mm Total length with strap 253mm 
Weight	50g (With strap)
Wearing	Wrist Strap
Power Supply	Rechargeable lithium battery*1
Battery Capacity	550mAh
Charging Method	DC 5V, magnetic interface
Charging Times	4 ~ 6 hours

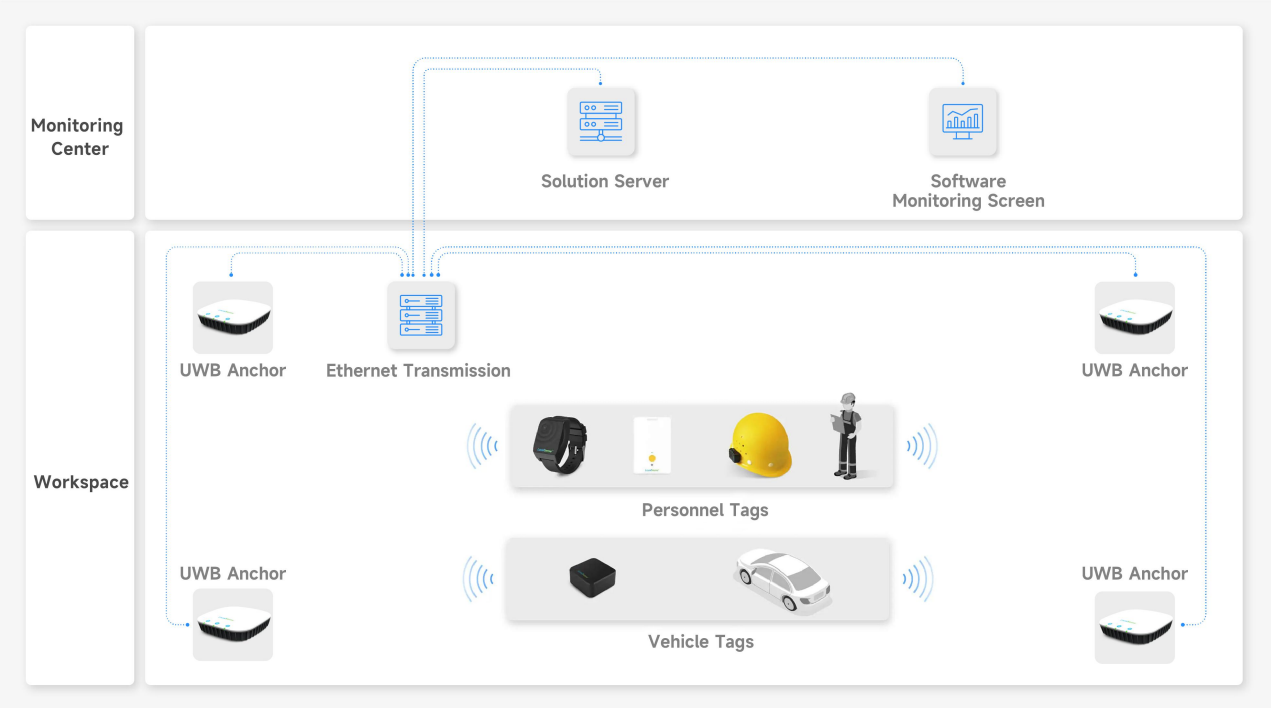
Battery Life	Typical working conditions 50 days; Enhanced range 136 days*2
One-touch Alarm	Support
Alarm Methods	Support indicator light, vibration, and beep alarms
Power-saving Mode	Built-in accelerometer enables auto-sleep for power saving
RFID	Built-in RFID coil, be compliant with ISO14443A
UWB Positioning Specifications	
Antenna Type	Built-in omnidirectional antenna
Radio Frequency Band	6.1GHz ~ 6.9GHz
Positioning Accuracy	10cm level*3
Positioning Frequency	Maximum 30Hz
RF Communication Range	≥50m
Operating Environment	
Protection Grade	IP67
Operating Temperature	-20℃ ~ 70℃
Storage Temperature	-40℃ ~ 85℃
Operating Humidity	0% ~ 90%, non-condensing
Storage Humidity	0% ~ 95% , non-condensing
Certifications	
Certifications	CE, FCC, RoHS

Note:

*1: In order to effectively extend the service life of lithium batteries and keep them in the best condition, it is recommended that the charging interval be no more than 6 months.
*2: Due to the impact of battery life, ambient temperature and other factors, the actual endurance time varies.
Typical working condition: Positioning under four anchors, working at 1Hz for 8 hours per day, sleep for 16 hours.
Enhanced endurance: Positioning under four visible anchors, working at 0.1Hz for 8 hours per day, sleep for 16 hours.
*3: Under open and interference-free conditions (e.g., no obstruction, no reflection, stable signal), the accuracy can reach 10cm.

Application Topology

After the tag and the anchor carrying out distance ranging, data obtained by the anchor will be transmitted to the server with the help of a network cable. And after the server receives the data, it is then handed over to the settlement engine for calculation and processing, and the result will finally be presented on the page.



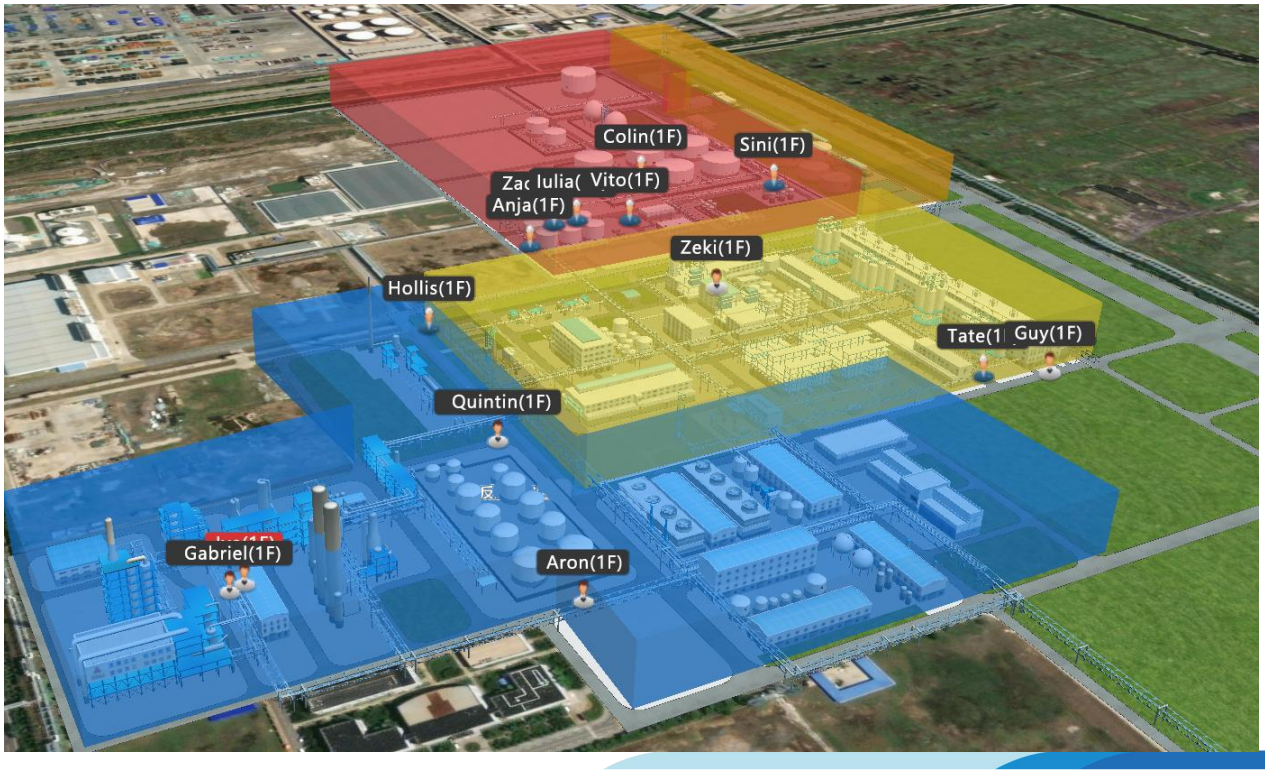
Positioning-based Applications

Visualized Management Screen

It can display the real-time positioning of all tags on 2D map, tilted photographic map, or 3D model map, which provides managers with an overall view. Through supervision of the large screen, managers can track the real-time understanding of the position of a person or object. Moreover, when an alarm is triggered, visual positioning facilitates immediate understanding of the incident and its status.

Geofencing

The system allows for the flexible creation of geofences and provides multiple alarm modes/types, such as in/out fence alarms, SOS alarms, distress alarms, missing alarms, area crowding alarms, and staying alarms. It also supports dual alarms both on the tag system and monitoring system.



Trajectory Retracing and Analysis

It supports tracing back past tag positioning data, displaying it in trajectory diagram, and associating it with alarms and monitoring videos occurring in the trajectory. Moreover, it possesses multi-fold speed playback, one-touch full track display and other functions to realize efficient and accurate tracking and analysis.

For more information, such as security camera linkage, area statistics, automatic attendance, automated inspection, linkage of access control systems, etc., please contact Brilliant IoT for more industry solutions.

More Information

If you want to get more related information, please don't hesitate to click our website:

https://www.brilliantinfosys.com

Or you can contact us through:

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