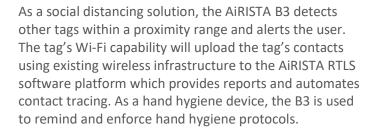# Wi-Fi / BLE Badge Tag for Social Distancing and Real-Time Staff Safety

The AiRISTA B3 badge tag provides proximity detection for hand hygiene compliance and social distancing & contact tracing using an existing Wi-Fi network. These badges are similar in size and shape of typical ID badges, to fit easily on a lanyard with other credential cards or on a belt clip.

As a social distancing solution, the AiRISTA B3 detects other tags within a proximity range and alerts the user. The tag's Wi-Fi capability will upload the tag's contacts using existing wireless infrastructure to the AiRISTA RTLS software platform which provides reports and automates contact tracing. As a hand hygiene device, the B3 is used to remind and enforce hand hygiene protocols.

Proximity sensing, contact storage, and BLE / Wi-Fi gateway capability make it an ideal tag for hand hygiene and social distancing & contact tracing

The B3 badge also gives key staff the information they need using business rules that are context-aware (such as tag button press, location, or proximity) and condition-aware (item category, count, or temperature).

As a hand hygiene device, the B3 records hand washing occurrences and reminds the wearer when a sanitization is needed with LEDs or audible chirps. With years of practical experience, the tag is even sensitive to "drive by" dispenses when the clinician makes no pause in front of the dispensing unit.

The B3 badge tags use a high-energy, rechargeable battery that works for weeks (depending on location update interval) without recharging. The battery can be charged using individual USB charging cables or a rack charger, which can charge up to ten badge tags at a time.

Benefits

- Predefined proximity settings alert the user for social distancing
- Proximity contact records facilitate automated contact tracing
- Together with the *sofia* software platform, provides support for unique dispenser types and hand hygiene protocols
- Accurately locate staff, visitors, and other personnel
- Customize alarms and notifications with two call buttons
- Stay powered with rapid two hour charging

Features

- BLE 4.X & 5.X compliant
- Proximity detection
- BLE / Wi-Fi gateway capability
- 2 programmable buttons
- Button push for staff duress
- Audio buzzers and two LEDs for on-board alerting
- BLE 5.X support for fine grained location accuracy

Technical Specifications   B3 Wi-Fi / BLE

Wi-Fi Radio

Supported Wi-Fi Networks: 802.11 b/g/n
Sleep Mode Maximum Leakage Current: <10ua
TX 802.11b, CCK 11 Mbps, Pout = +19 dBm
TX 802.11g, OFDM 54 Mbps, Pout = +17 dBm
TX 802.11n, MCS7, Pout = +17 dBm
Rx 802.11b, 1024 bytes packet length, -80 dBm
Rx 802.11g, 1024 bytes packet length, -70 dBm
Rx 802.11n, 1024 bytes packet length, -65 dBm
FCC, Canada, ETSI 2.4 - 2.4835 GHz
Japan 2.471 -2.497 GHz
Layer 2 Network Support: CCX, Blink
Security: WEP, WPA2-PSK
Supported Data Rates, 1, 6,11,54,72 Mbps

BLE Radio

Blue-tooth Low Energy (BLE) Radio
BLE 4.1, 4.2 and 5.0 Compliant
RX BLE: 6mA
TX BLE: 6mA
TX BLE max Out Put Power: 5dBm

Electrical Interface

DC Power: Rechargeable Lithium Polymer battery
Capacity: 600mAh
Rated cycle life: 300 cycles > 70% of initial cap Interface
Antenna: Omni-directional antenna

Battery Life

*Average 24-36 hours per full charge

*This time will depend on the configuration applied to the tag.

User Interface

Two call buttons and a menu button
Two red/green signal LEDs
Customizable Alarms

Frequency band

Channels 1-11: North America
Channels 1-13: Global
Channels 1-14: Japan

Environment

Operating Temperature: 32 to 122 °F / 0 to 50 °C
Storage Temperature: -40 to 140 °F / -40 to 60 °C
Humidity: 95 % non-condensing, relative humidity
Protection: dust and splash proof enclosure

Typical Operating Range

Line of Sight:
330 ft/100 m @11Mbit/s, 500 ft/150 m @2Mbit/s*
Obstructions:
140 ft/40 m @11Mbit/s, 200 ft/60 m @2Mbit/s

Physical

Dimensions:
3.54 x 2.36 x 0.33 in / 90 x 60 x 8.5 mm
Weight: 1.7 oz. / 48 g

Certifications

FCC: Part 15 (US and Canada)
CE Mark (European Union)
Cisco Support: CCX protocol support

Part Number

Badge Tag: B3
Multi-charger for 10 B3 badges: B4-10-Multicharger
USB Charging Cable: B4-USB
Charging Adapter: Charge-adapter
Car Charger: B4n-CarCharger

*Specifications subject to change without prior notice.

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