NCCELA



Noccela ID Badge



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Noccela ID Badge is a UWB based proximity detection device perfect for social distancing and contact tracing applications. The tags generate alerts when close to each other and send the contact data to server via a UWB beacon for Contact Tracing.

Social Distancing Alerts



FEATURES

- Up to 10 cm in accuracy
- · Low Power Usage
- Rechargeable Battery lasts 24 hours on a single charge
- Secure and reliable

- Wearable form factor (lanyard style)
- LED Indication
 and Buzzer for Alerts
- IP67



TECHNICAL SPECIFICATIONS

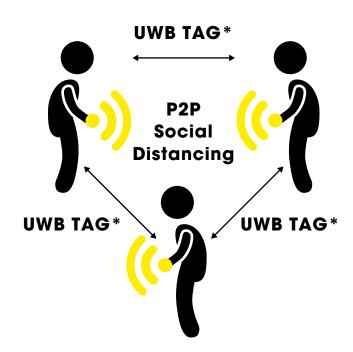
Item	Description
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Overview	
Product Name	Noccela ID Badge
Standard	IEEE802.15.4-2011 UWB compliant
Recharging Interface	USB DCP charging with Type C connector and/or pogo pins
Accuracy	10 cm
Button	Single tactile button to reset the device
Recharging Voltage	4.2V
Instant Power Consumption	Less than 500mW
Standby Time	>15 days
Refresh Time	Less than Second
LED	LED Three Color (RGB)
Buzzer	1 Piezoelectric buzzer(84dB)
Sensors	3-axis Accelerometer
Battery Capacity	750mAh Li-Polymer Battery (IEC 62133-2 compliant)
Battery Life	1-2 weeks
Charging Time	2.2 hours
Peer-to-peer Proximity Alerts	
Between 7.76 ft. to 6.13 ft.	Orange LED Indication + beeps every second (1 Hz)
less than 6.13 ft.	Red LED Indication + beeps every second (1 Hz)
RF(UWB)	
Working Frequency	6489.6MHz
Working Frequency	
Working Frequency Physical Rate	110 Kbps
	110 Kbps 850 Kbps
	110 Kbps
	110 Kbps 850 Kbps
Physical Rate	110 Kbps 850 Kbps 6.8 Mbps
Physical Rate Output Power(25° C)	110 Kbps 850 Kbps 6.8 Mbps -41dBm/MHz
Physical Rate Output Power(25° C) Channel Frequency Width	110 Kbps 850 Kbps 6.8 Mbps -41dBm/MHz 500MHz
Physical Rate Output Power(25° C) Channel Frequency Width Antenna Type	110 Kbps 850 Kbps 6.8 Mbps -41dBm/MHz 500MHz Integral
Physical Rate Output Power(25° C) Channel Frequency Width Antenna Type Antenna gain	110 Kbps 850 Kbps 6.8 Mbps -41dBm/MHz 500MHz Integral
Physical Rate Output Power(25° C) Channel Frequency Width Antenna Type Antenna gain Software	110 Kbps 850 Kbps 6.8 Mbps -41dBm/MHz 500MHz Integral 0.5dBi
Physical Rate Output Power(25° C) Channel Frequency Width Antenna Type Antenna gain Software UWB	110 Kbps 850 Kbps 6.8 Mbps -41dBm/MHz 500MHz Integral 0.5dBi ToF
Physical Rate Output Power(25° C) Channel Frequency Width Antenna Type Antenna gain Software UWB UWB Range	110 Kbps 850 Kbps 6.8 Mbps -41 dBm/MHz 500MHz Integral 0.5dBi ToF 50m@-41dBm/MHz,6.8Mbp,LOS
Physical Rate Output Power(25° C) Channel Frequency Width Antenna Type Antenna gain Software UWB UWB Range Sleep	110 Kbps 850 Kbps 6.8 Mbps -41dBm/MHz 500MHz Integral 0.5dBi ToF 50m@-41dBm/MHz,6.8Mbp,LOS Inactivity (no motion) for 60 seconds - configurable
Physical Rate Output Power(25° C) Channel Frequency Width Antenna Type Antenna gain Software UWB UWB Range Sleep Upgrade	110 Kbps 850 Kbps 6.8 Mbps -41 dBm/MHz 500MHz Integral 0.5dBi ToF 50m@-41dBm/MHz,6.8Mbp,LOS Inactivity (no motion) for 60 seconds - configurable OTA
Physical Rate Output Power(25° C) Channel Frequency Width Antenna Type Antenna gain Software UWB UWB Range Sleep Upgrade Configuration	110 Kbps 850 Kbps 6.8 Mbps -41 dBm/MHz 500MHz Integral 0.5dBi ToF 50m@-41dBm/MHz,6.8Mbp,LOS Inactivity (no motion) for 60 seconds - configurable OTA
Physical Rate Output Power(25° C) Channel Frequency Width Antenna Type Antenna gain Software UWB UWB Range Sleep Upgrade Configuration Physical Specification	110 Kbps 850 Kbps 6.8 Mbps -41 dBm/MHz 500MHz Integral 0.5dBi ToF 50m@-41dBm/MHz.6.8Mbp.LOS Inactivity (no motion) for 60 seconds - configurable OTA OTA
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Physical Rate Output Power(25° C) Channel Frequency Width Antenna Type Antenna gain Software UWB UWB Range Sleep Upgrade Configuration Physical Specification Size(mm) Weight(g)	110 Kbps 850 Kbps 6.8 Mbps -41dBm/MHz 500MHz Integral 0.5dBi ToF 50m@-41dBm/MHz,6.8Mbp,LOS Inactivity (no motion) for 60 seconds - configurable OTA OTA
Physical Rate Output Power(25° C) Channel Frequency Width Antenna Type Antenna gain Software UWB UWB Range Sleep Upgrade Configuration Physical Specification Size(mm) Weight(g) Circumstances	110 Kbps 850 Kbps 6.8 Mbps -41dBm/MHz 500MHz Integral 0.5dBi ToF 50m@-41dBm/MHz,6.8Mbp,LOS Inactivity (no motion) for 60 seconds - configurable OTA OTA 114.3 x 58 x 8 mm 42g
Physical Rate Output Power(25° C) Channel Frequency Width Antenna Type Antenna gain Software UWB UWB Range Sleep Upgrade Configuration Physical Specification Size(mm) Weight(g) Circumstances Temperature	110 Kbps 850 Kbps 6.8 Mbps -41dBm/MHz 500MHz Integral 0.5dBi ToF 50m@-41dBm/MHz,6.8Mbp,LOS Inactivity (no motion) for 60 seconds - configurable OTA OTA 114.3 x 58 x 8 mm 42g Operating: 0°C to 50°C / Storage: -20 °C to + 60 °C



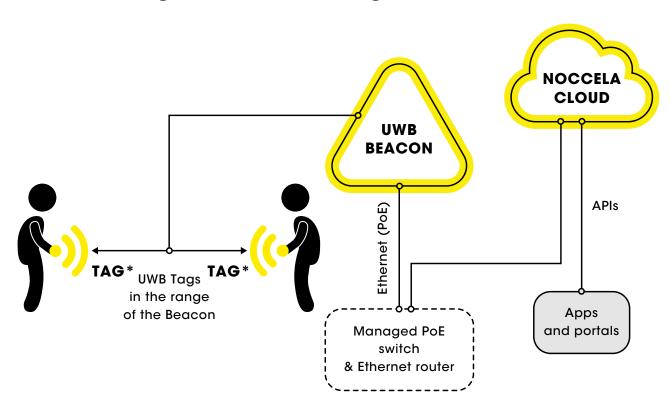
APLICATION STRUCTURE

SOCIAL DISTANCING AND CONTACT TRACING

- Peer-to-peer Proximity and alerts with Tags
- · Configurable distance alerts with sound and light
- Flexible and adjustable
- Minimal infrastructure
- Contact tracing data for contamination chain



The data is synchronized to cloud while tags are in the range of the beacon





MECHANICAL DESIGN





Color: Black

Material: ABS Plastic

Finish: Matte