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Eagle (1W) Asset Tracking for Wiliot Ecosystem Evaluation Kit

QUICK START GUIDE

wiliot

Quick Start Guide

This guide explains the setup and operation of the Wiliot Ecosystem for products such as, the Dual Band Wiliot Pixel Tag, Energous Eagle (1W) PowerBridge, Wiliot Software Application, and Wiliot Cloud.

Figure 1: System Diagram

Box Contents

- Eagle (1W) PowerBridge Transmitter (1)
- 5V/1A USB power adapter and USB-A to USB-C cable (1)
- Wall/Ceiling mounting plate (1)
- Wiliot Pixel Tag (10)

Figure 2: Eagle (1W) PowerBridge and Wiliot Pixel Tags

1. Setup the PowerBridge

- Connect the USB cable to the PowerBridge Transmitter and the power supply.
- Mount the PowerBridge on a stand, a wall, or a ceiling using the keyhole screw mounts or with the included optional mounting plate. Position it so that it points towards the intended area of operation.
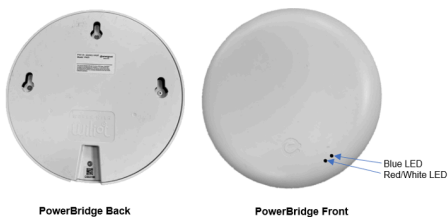

Figure 3: Mounting Diagram

PowerBridge Back

PowerBridge Front

Blue LED
Red/White LED

Figure 4: PowerBridge Transmitter Back/Front View

2. Wiliot Pixel Tag Placement Setup

Pixel Tag features:
- Postage stamp-sized Pixel Tag
- Battery-free Pixel Tag
- Temperature and location sensing
- Surface occupancy, proximity, and humidity (coming soon)

Figure 5: Wiliot Pixel Tags

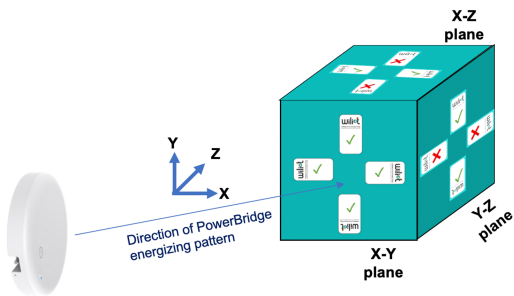- Paste/place the Wiliot Pixel Tag. The image below shows an example of the Pixel Tag positioning.

Figure 6: Wiliot Pixel Tags (front view facing towards PB-TX)

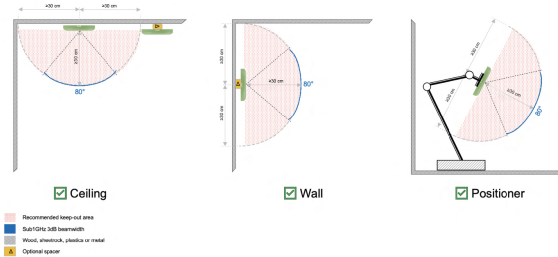# 3. System Level Setup

Figure 7: Recommendations for Best Performance

- Place PowerBridge and Wiliot Pixel Tag between 1~10 meters.
- Place Wiliot Pixel Tag in the line of sight of the PowerBridge.

4. System Level Operation

- Connect the PowerBridge power supply to a power source.
- After power-on, the blue LED flashes for 30 seconds indicating the PowerBridge is running.
- The PowerBridge starts RF power transmission automatically in 918 MHz, and the white LED turns on solid.

5. Wiliot Pixel Tag Account Setup

- Go to the Wiliot portal site: https://platform.wiliot.com/.
- Sign up for a new user account.
- After it has been approved/activated by the Wiliot team, login to the account.
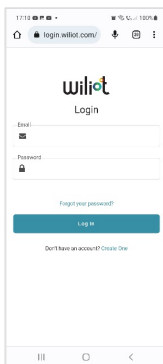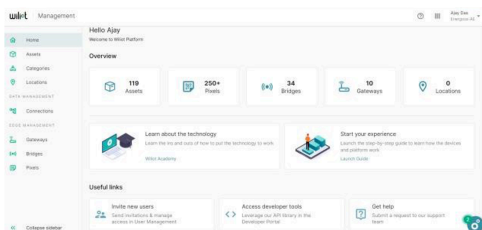

Figure 8: Wiliot Portal Login Screen

Figure 9: Wiliot Portal Homepage Login Screen

Wiliot Pixel Tag Account Setup Cont'd.

The portal account can be used to manage the following:
- Pixel Tags: claim/delete
- Assets: customized/group Pixel Tags
- Gateways: claim or push Pixel Tag data from PowerBridge to Wiliot Cloud portal through local Wi-Fi gateway
- PowerBridge (Bridges): claim/delete
  - Setup and configuration
    - Frequency
    - Energy pattern
    - Others

Note:
1. The PowerBridge, Pixel Tags/Assets, and Gateway must be claimed by the same account environment.
2. After the account and other details are setup on the Wiliot Portal as explained above, the details can be viewed through the Wiliot Mobile Application.

Wiliot Mobile Application:
- Tap on the Wiliot Mobile Application from a mobile device to reach the homepage. Tap the person icon on the top left to enter the account settings page.
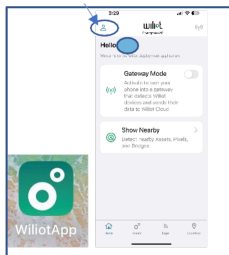

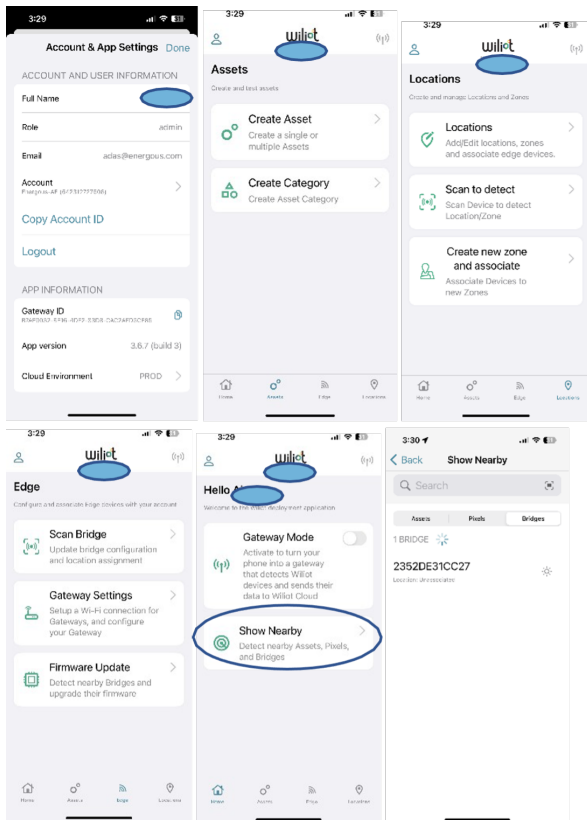*Figure 10: Wiliot Mobile Application Icon and Homepage*

Figure 11: Wiliot Mobile Application Features Screens
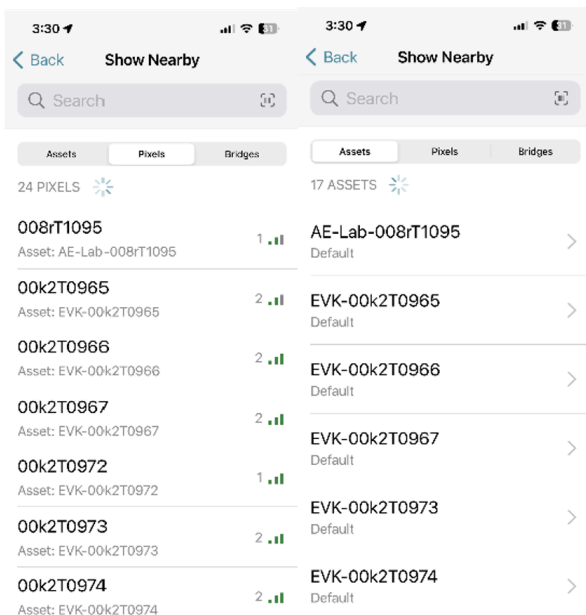
Wiliot Pixel Tag Account Setup Cont'd.

Figure 12: Wiliot Mobile Application Features Screen

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