

**energous** 

# 1W Wiliot Ecosystem Evaluation Kit

QUICK START GUIDE





#### **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 1W PowerBridge, Wiliot Software Application, and Wiliot Cloud.



Figure 1: System Diagram

#### **Box Contents**

- 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: EVK Box and Contents

#### 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



Figure 4: PowerBridge Transmitter Back/Front View



Figure 5: PowerBridge Transmitter Ceiling and Wall Mount

#### 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 6: PowerBridge Transmitter

 Paste/place the Wiliot Pixel Tag. The image below shows a sensing test setup.



Figure 7: Wiliot Pixel Tags (front view facing towards PB-TX)

# 3. System Level Setup



Figure 8: System Level Setup Example

- 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 at 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 9: Wiliot Portal Login Screen



Figure 10: 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.
- 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 11: Wiliot Mobile Application Icon and Homepage

# Wiliot Pixel Tag Account Setup Cont'd.

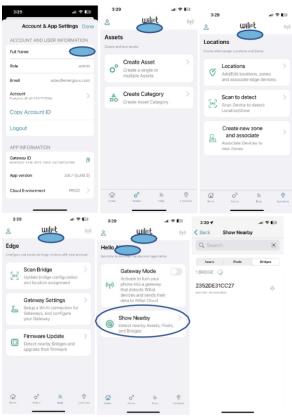


Figure 12a: Wiliot Mobile Application Features Screens

# Wiliot Pixel Tag Account Setup Cont'd.

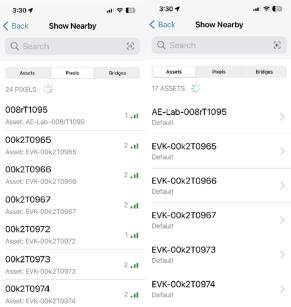


Figure 12b: Wiliot Mobile Application Features Screen



# Contact:

sales@energous.com

T: (408) 963-0200

