



Asset Tracking Evaluation Kit

QUICK START GUIDE



Overview and Box Contents

This guide explains how to set up a wireless power network using the Energous 1W PowerBridge transmitter or Energous 1W Omnidirectional PowerBridge transmitter in combination with the Wiliot ecosystem, which includes products such as the dual band Wiliot Pixels tag, the Wiliot software application, and the Wiliot cloud



Figure 1: Wireless Power Network System Diagram

Box Contents:

- Energous 1W PowerBridge transmitter or Energous 1W Omnidirectional PowerBridge transmitter (1)
- 5V/1A USB power adapter and USB-A to USB-C cable (1)
- Wall/ceiling mounting plate (1)
- Wiliot Pixels tags (10)



Figure 2: Energous 1W PowerBridge transmitter and Wiliot Pixels Tags



1. Energous PowerBridge Setup

- Connect the USB cable to the Energous PowerBridge transmitter and the power supply.
- Mount the Energous PowerBridge transmitter 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.



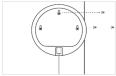


Figure 3: Mounting Diagram

Energous 1W PowerBridge Transmitter



Energous 1W Omnidirectional PowerBridge Transmitter



Figure 4: Energous 1W PowerBridge transmitter and Energous 1W Omnidirectional PowerBridge transmitter Back/Front Views



2. Wiliot Pixels Tag Setup

Pixels tag features:

- Postage stamp-sized Pixels tag
- Battery-free Pixels tag
- Temperature and location sensing
- Surface occupancy, proximity, and humidity (coming soon)





Figure 5: Wiliot Pixels Tags

 Paste/place the Wiliot Pixels tag. The image below shows an example of the Pixels tag positioning.

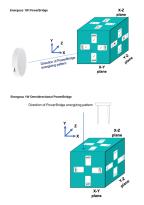


Figure 6: Wiliot Pixels Tags Positioning



3. Wireless Power Network Setup and Operation

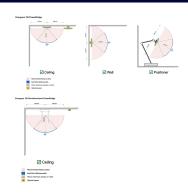


Figure 7: Recommendations for Best Performance

- Place the Energous PowerBridge transmitter and Wiliot Pixels tag between 1~10 meters.
- Place the Wiliot Pixels tag in the line of sight of the Energous PowerBridge transmitter.

System Level Operation:

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



4. Wiliot Pixels Tag Account Setup

- Go to the Wiliot portal site: https://platform.wiliot.com/
- Sign up for a new user account.
- After the new account has been approved/activated, login to the account.
- Account can also be accessed via the Wiliot mobile app.



Figure 8: Wiliot Portal Homepage Login Screen



FCC Warning Statement

FCC NOTICE: This kit is designed to allow:

Product developers evaluate electronic components, circuitry, or software associated with the kit to determine whether to incorporate such items in a finished product.

Software developers to write software applications for use with the end-product.

This kit is not a finished product and when assembled may not be resold or otherwise marketed unless all required FCC equipment authorizations are first obtained. Operation is subject to the condition that this product does not cause harmful interference to licensed radio stations and that this product accept harmful interference. Unless the assembled kit is designed to operate under part 15, part 18 or part 95 of this chapter, the operator of the kit must operate under the authority of an FCC license holder or must secure an experimental authorization under part 5 of this chapter.

This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained. This evaluation kit does not include SAR keep out zone sensors that may be needed in certain use cases. A 20 cm separation distance should be maintained during operation, test, and evaluation to ensure continuing SAR compliance.



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