

Wirelessly Powered Sensor Evaluation Kit



In partnership with Atmotic, this Wirelessly Powered Sensor Evaluation Kit gives you a hands-on experience with Energous' award-winning Wireless Power Networks technology and Atmotic's RF Energy Harvesting Bluetooth Low Energy (LE) system-on-a-chip (SoC). This kit is specifically designed to demonstrate the capabilities of these technologies for battery-free IoT sensor applications.

This Wirelessly Powered Sensor evaluation kit combines an Energous 1W WattUp PowerBridge with two Atmotic-based battery-free sensors and a mobile application to receive sensor data via Bluetooth LE. The sensors support at-a-distance wireless power from the Energous PowerBridge for applications like smart buildings, industrial IoT sensors, retail electronic displays, and more.

The 1W WattUp PowerBridge incorporates highly integrated SoC, a high-efficiency power amplifier to source up to 1 watt of wireless power, and also integrates Bluetooth LE 5 for communications and control.

The battery-free sensors are built around Atmotic's ATM3202 extreme low power Bluetooth LE 5 SoC that incorporates on-chip RF Energy Harvesting with a dedicated antenna input. Data is collected from a temperature and humidity sensor as well as a 3-axis accelerometer and transmitted to the mobile application.



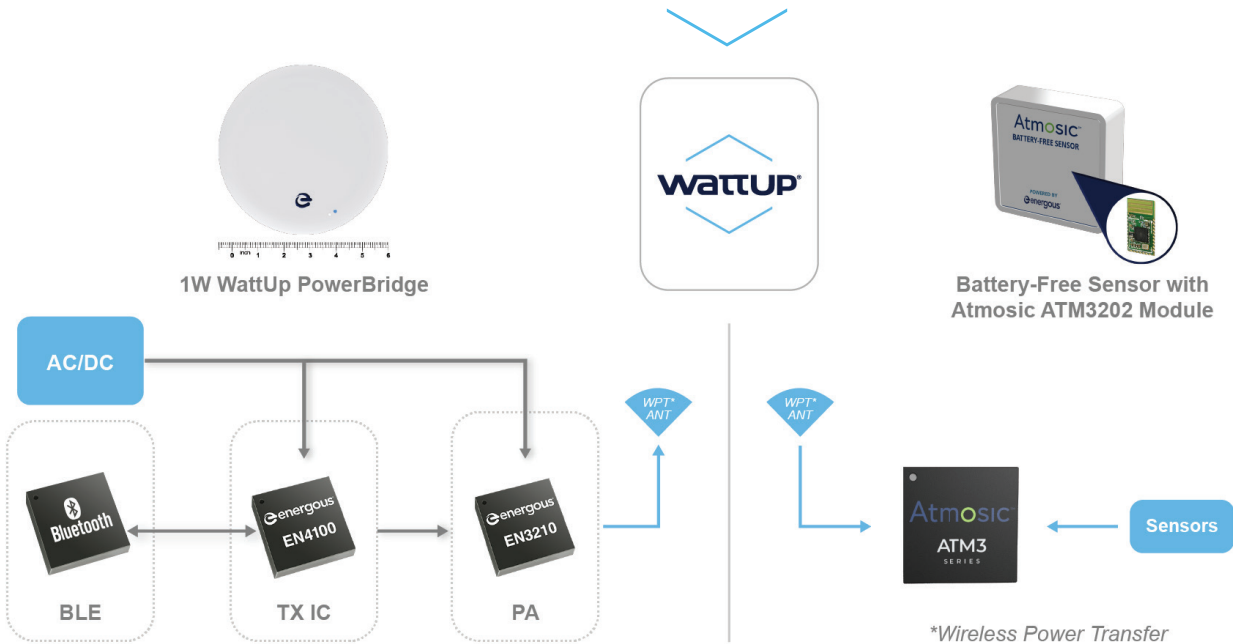
Kit Contents

- 1W WattUp PowerBridge Transmitter (1)
- Battery-Free IoT Sensors (2)
- Mobile Application to Monitor and Control TX/RX





Wirelessly Powered Sensor Evaluation Kit Block Diagram



Advantages

- The kit's sensors are designed around the Atmotic ATM3202 Extreme Low Power Bluetooth LE SoC with Integrated RF Energy Harvesting
- Sensors provide Temperature, Humidity, and Acceleration information to a mobile application via Bluetooth LE. Sensor design information can be provided to support customization and integration of other sensor types
- Integrated multistage RF harvesting rectifier with MPPT (maximum power point tracking) algorithm maximizes harvesting performance over the input range
- Sensor consumes approximately one quarter the power consumption of a typical Bluetooth LE beacon increasing the amount of functionality (sensor reads and reporting interval) for a given amount of power vs. other solutions
- Energy harvesting BLE module with integrated flash supports rapid customer development and device integration in a small form factor

For more information or to order,
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