QSG119: Wizard Gecko WSTK Quick-Start Guide

The Wizard Gecko WGM110 Wi-Fi® Wireless Starter Kit (WSTK) is designed to help you get started and evaluate the Silicon Labs WGM110 Wi-Fi Module. WSTK allows you to easily test the features of the WGM110 Wi-Fi Module and try out the example applications.

This quick-start guide includes instructions on how to setup and test the pre-installed demo application in your WGM110 Wireless Starter Kit. Additional software and documentation resources available for the WGM110 device are referenced as well.

KEY POINTS
- Preparing to use the WSTK
- Using the pre-installed Wi-Fi demo application
- Starting your own application development

Ordering Info
- SLWSTK6120A

Kit Contents
- WGM110 Wi-Fi Module Radio Board
- Wireless Starter Kit Mainboard
- Wireless Starter Kit Extension Board
- Mini USB cable
- Micro USB cable
- Battery holder for 2 x AA batteries

Software Support
- Wizard Gecko Wi-Fi Software
- Wizard Gecko Wi-Fi SDK
- Example applications for the kit
- PC tools

1. Preparing the Wizard Gecko Wi-Fi Module Wireless Starter Kit

1. Connect the WSTK Expansion Board to the WSTK Mainboard as shown in the figure below.
2. Connect the WSTK WGM110 Wi-Fi Module Radio Board to the WSTK Mainboard as shown in the figure below.
3. Set the power switch marked [**BAT USB AEM**] into the **"AEM"** position.
4. Connect the WSTK Mainboard to a PC using a USB Mini-B cable supplied with the WSTK.

Note: If you are prompted to install the drivers for the WSTK Mainboard, you can ignore the request at this stage.

Verify the following:
1. That the **USB Connection Indicator** (blue LED) marked **"SEGGER"** on the Mainboard turns on or starts blinking.
2. That the LCD Display turns on and shows the Silicon Labs logo.
3. That when testing the demo application, you can test the **Temperature & Humidity Sensor**, indicated in the figure below, by pressing your finger on top of the sensor: the temperature reading should change.
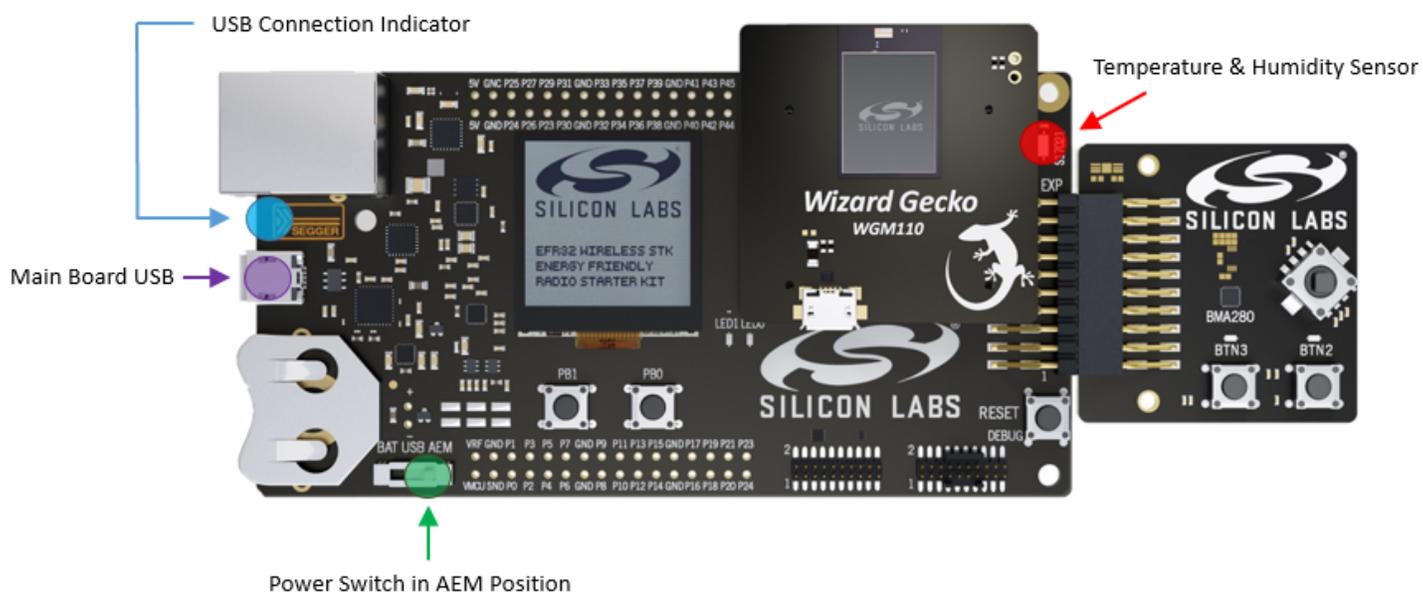
Figure 1.1. Verifying the WSTK Setup

2. Using the Pre-Installed Wi-Fi Demo

The pre-installed demo application will turn the WGM110 Module into a Wi-Fi Access Point (AP). The built-in HTTP Server is started. It displays the temperature and humidity readings from the WSTK's **Temperature & Humidity Sensor**, which is connected to the I2C bus of the WGM110 Wi-Fi Module.

You can connect to the WGM110 Wi-Fi Module (using your smart phone, tablet, or PC) and access the sensor data with a standard web browser.

Connecting to the WGM110 Module

1. Search for nearby Wi-Fi networks using your smart device.
   a. Select the network with the following SSID: **"WGM110 Example"**
2. Connect to the network with your smart device.
   Note: Connection does not require any security settings.

3. Once the connection has been established, open a web browser on your smart device.
   a. Go to address http://192.168.1.1
4. You should now have access to the built-in HTTP Server, and see a temperature and humidity meter on the browser screen.
   a. The page is automatically refreshed.
   b. Test the sensor by pressing your finger on top of the sensor or by breathing on it and observe how the sensor readings change.
5. Open the *index.html* file in the SDK to see how the demo application has been made.
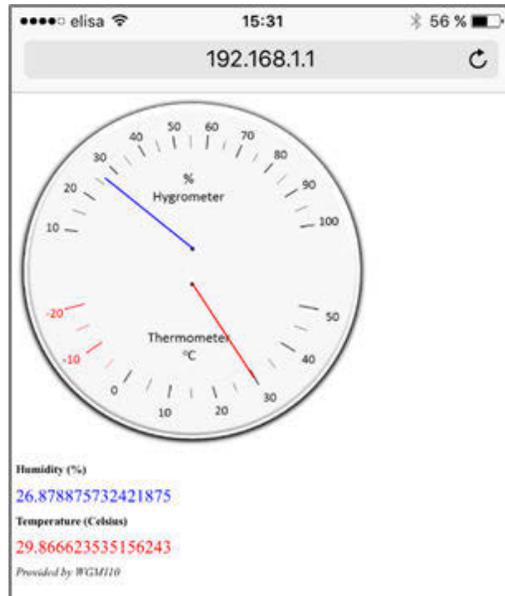
3. Continue with Your Own Application Development

To learn more about the Wizard Gecko WGM110 Wi-Fi® Module, try other demos and examples, and start developing your own applications:

- Go to http://www.silabs.com/start-wgm.
- Create an account and log in.
- Download the *QSG122: WGM110 Wi-Fi® Module Software Quick-Start Guide* to learn more about the Wi-Fi software, SDK, tools, and other demo applications.
- Download the *UG172: Wizard Gecko Wi-Fi® Module Wireless Starter Kit SLWSTK6120A User's Guide* to learn more about the wireless starter kit.
- Download the *Wizard Gecko WGM110 Wi-Fi® Module Radio Board BRD4320A Reference Manual* to learn more about the Radio Board features.
- Download the *Wizard Gecko SDK* Software Development Kit and install it on your PC to start developing your own applications.

A complete list of support available including a list of documents can be found at the end of *WGM110 Wi-Fi® Module Data Sheet* and from Silicon Labs web page at http://www.silabs.com/start-wgm.

4. Revision History

4.1 Revision 1.0

Feb. 22, 2016

Initial release.
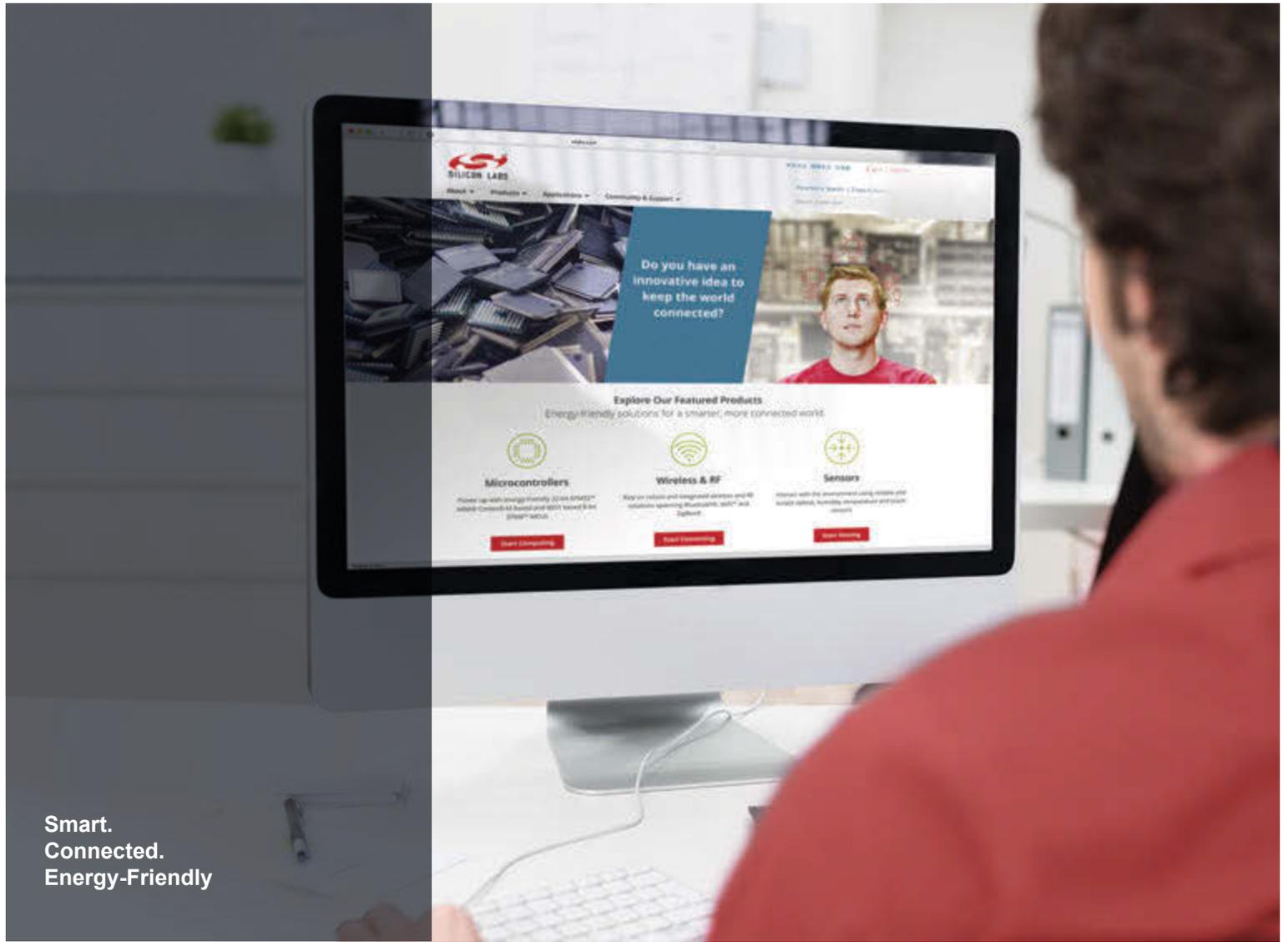
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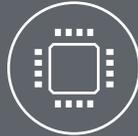
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