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SILICON LABS AN346 Si47 Series Evaluation Board User Guide

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Product Information

The Si47xx Evaluation Board (EVB) is a product developed by Silicon Laboratories. It is a FM Transmitter/AM/FM/SW/LW/WB Receiver that is designed to facilitate the development process and reduce development time. The EVB comes with associated software and support materials available on the Si47xx Customer Support Site at **www.mysilabs.com**. For detailed configuration instructions, refer to the EVB CD (Si47xx Evaluation Board User's Guide) or the Si47xx Customer Support Site.

Quick-Start Guide

1. Remove any previous versions of the GUI by going to Add or Remove Programs in the Windows control panel.
2. Insert the Silicon Laboratories CD into the host CD drive.
3. Install the Development GUI located at CD:Si47xxSetup.exe.
4. Connect the USB cable to the Si47xx EVB USB connector.
5. Ensure that switch SW1 is in the USB position to use USB power.
6. Launch the Si47xx Development GUI.
7. Select the appropriate function (FM Transmitter/AM/FM/SW/LW/WB Receiver) and its associated firmware image to initialize the EVB. Refer to the user's guide for further information.
8. For optimum performance, use the EVB with a 9 V battery or power it via a USB cable connected to a laptop. If using a laptop, ensure that it is running off its own battery and not plugged into a wall socket.

General Debugging Guidelines

If the EVB is not functioning properly, follow these troubleshooting tips:

1. Check if the EVB is recognized by your PC by right-clicking on My Computer, selecting Properties, and navigating to Hardware > Device Manager. Un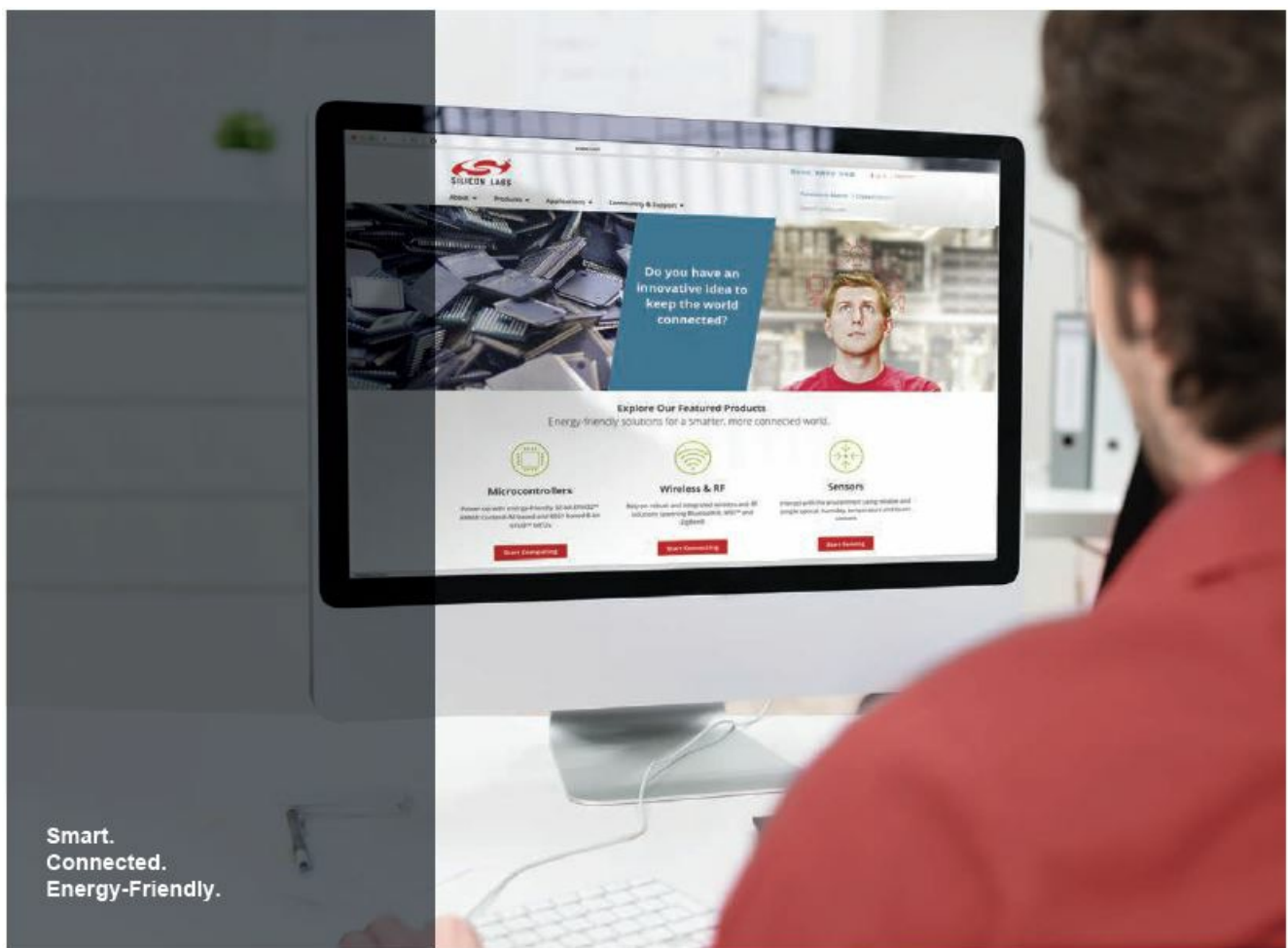der Human Interface Devices, select each HID-Compliant Device Details entry and confirm that one contains VID_10C4&PID_8244.
2. If the EVB is not recognized by the GUI, uninstall .NET Framework V2.0 and reinstall it from Microsoft's

Windows Update.

AM/SW/LW Function-Specific Debugging Guidelines

If the EVB experiences noise or issues related to AM/SW/LW functions, follow these troubleshooting tips:

1. Disable Update under the Control menu in the GUI to stop intermittent AM clicking noise.
2. Check GUI properties to verify the set channel spacing for the region (applies to AM and FM).
3. For optimum performance, use the provided 9 V battery or power the EVB via USB.
4. If using a laptop, ensure that it is running off the battery and not plugged into an AC outlet.
5. When evaluating AM reception, be close to a window or outside in the open to avoid interference from large metal structures like buildings.

For additional suggestions and guidelines, refer to the EVB User's Guide.

Si47XX EVALUATION BOARD QUICK-START GUIDE

Thank you for purchasing the Silicon Laboratories Si47xx FM Transmitter/AM/FM/SW/LW/WB Receiver Evaluation Board (EVB). The EVB and associated software have been designed to speed the overall development process and decrease required development time. We look forward to working with you and have posted support articles, answers to frequently asked questions, and application notes on the Si47xx Customer Support Site at **www.mysilabs.com**.
Note: A more comprehensive user's guide for configuring your system is available on the EVB CD (Si47xx Evaluation Board User's Guide) and on the Si47xx Customer Support Site. If you have any difficulty or questions about any of the steps below, please consult the EVB users guide prior to plugging in your EVB.

1. Make sure any prior versions of the GUI are removed prior to installation of the GUI application software shipped with the Si47xx EVB kit.
   - You can remove the old version of the GUI by going to "Add or Remove Programs" in the Windows control panel.
2. Insert the Silicon Laboratories CD into host CD drive.
3. Install the Development GUI located in CD:\Si47xx\Setup.exe.
4. Connect the USB cable to the Si47xx EVB USB connector.
5. Make sure that switch SW1 is in the USB position to use USB power.
6. Launch the Si47xx Development GUI.
7. Once the GUI is launched, select the appropriate function (FM Transmitter/AM/FM/SW/LW/WB Receiver) and its associated firmware image to initialize the EVB. Refer to the user's guide for further information.
8. For optimum EVB performance, use the EVB with a 9 V battery, or provide power via a USB cable plugged into a laptop. In the latter case, the laptop should be running off its own battery and should not be plugged into a wall socket.

General Debugging Guidelines

If your EVB is not functional, please refer to the following troubleshooting tips.

1. Make sure the EVB is recognized by your PC. Right-click on "My Computer", and select "Properties" →
   - Hardware" → "Device Manager". Under "Human Interface Devices", select each "HID-Compliant

Device"⟶

- Details" entry, and confirm one contains "VID_10C4&PID_8244".

2. If the EVB is not recognized by the GUI, uninstall .NET Framework V2.0, and reinstall from Microsoft's Windows Update.

AM/SW/LW Function-Specific Debugging Guidelines
In the case that your EVB is noisy, refer to the following troubleshooting tips. The EVB User's Guide will also provide additional suggestions and guidelines.

1. Disable "Update" under the "Control" menu (disables continuous Si47xx GUI updates and stops intermittently AM clicking noise).
2. Check GUI properties to verify set channel spacing for region. This applies to AM and FM.
3. For optimum performance, use the 9 V battery provided with the EVB, or use power from the USB.
4. If using a laptop, ensure that the laptop is running off the battery and is not plugged in to the ac outlet.
5. Make sure you are close to a window or outside in the open when evaluating AM reception. Large metal structures, such as buildings, interfere with AM reception; so, it is best to be away from these sources of interference.

Products

- **www.silabs.com/products**.

Quality

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Documents / Resources

[SILICON LABS AN346 Si47 Series Evaluation Board](#) [pdf] User Guide
AN346, AN346 Si47 Series Evaluation Board, Si47 Series, Evaluation Board, AN346 Evaluation Board

References

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