Authors: Yuriy Kurtsevoy, Robert Grist and Alan Erzinger

Updating Intersil USB Evaluation Firmware

FIGURE 1. EXAMPLE OF BOARDS THAT MIGHT NEED UPDATING

Intersil Evaluation boards may need to be re-programmed to enable Vista and Win7 compatibility. Other evaluation boards may need firmware updated due to product and software changes. See Figure 1. This re-programming is needed to update the firmware the Silicon Lab Micro-Controller executes. In many cases, the firmware is being changed from the Jungo USB driver to being a standard HID (Human interface device). The HID USB connection does not require an additional USB driver to operate. It is part of the Windows operating system.

Please note: Updating the firmware alone does not make the Evaluation Software work on Vista and Windows 7. You will also need updated GUI (Application) software as well. Contact Intersil Applications Support "AskOur Staff" for more information regarding GUI updates.

Hardware Description

From a Hardware standpoint, you will need the Silicon Laboratories USB Debug Adapter. See Figure 2.

FIGURE 2. SILICON LAB USB DEBUG ADAPTER

This item can be purchased from this Web site:

http://www.silabs.com/products/mcu/Pages/USBDebug.aspx

Software Guide

Installation

Download Silicon Laboratories Flash Utility from here:

http://www.silabs.com/products/mcu/Pages/FlashProgrammingUtilities.aspx

For the Intersil USB Dongle Connection: Both USB connector and the Silicon Lab USB Debug Adapter will need to be connected. The Intersil USB Dongle does not power up with the programming cable. See Figure 3. The programming connector needs to be placed as shown. The red conductor is connected to Pin 1 of J2. See Figure 4.

For the Intersil USB2DCP Connection: Just the Silicon Lab USB Debug Adapter will need to be connected. The programming connector needs to be placed as shown. The red conductor is connected to Pin 1 of JP7. See Figure 5.

Finally, you will need the Hex File to be downloaded. Contact Intersil Application Support "AskOur Staff"regarding this file. Most users will receive this file attached to the same e-mail sent when you received this document.

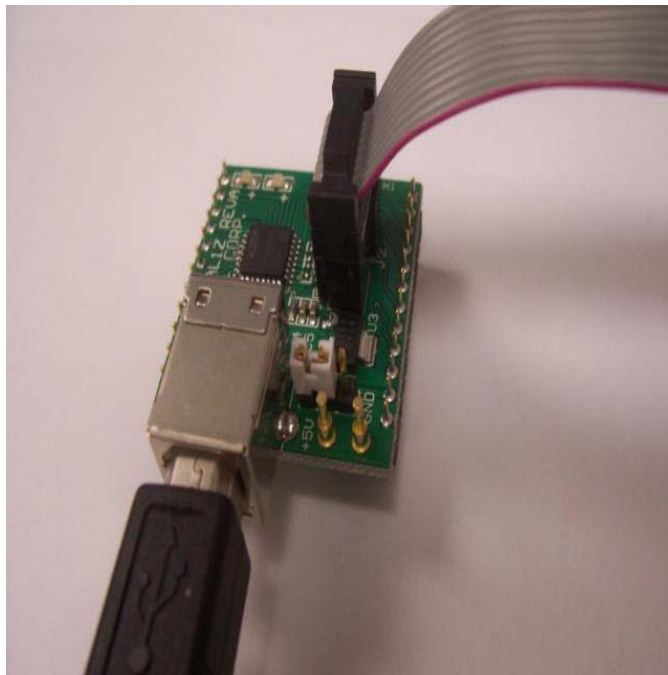**FIGURE 3. SILICON LAB USB DEBUG ADAPTER HOOK UP FOR THE INTERSIL USB DONGLE**

FIGURE 4. SILICON LAB USB DEBUG ADAPTER PIN 1 HOOK UP FOR THE INTERSIL USB DONGLE J2

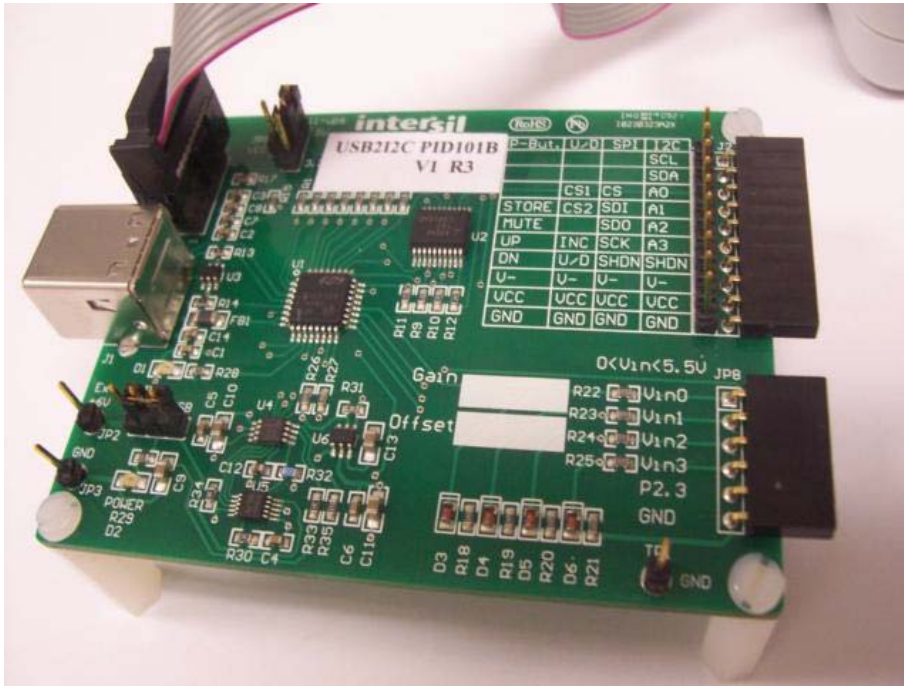FIGURE 5. SILICON LAB USB DEBUG ADAPTER PIN 1 HOOK UP FOR THE USB2DCP MOTHER BOARD JP7

In order to program SiLab's µC, you have to have use the USB Debug Adapter or EC2 Serial Adapter and Silicon Laboratories Utility program!

1. Open Silicon Laboratories Flash Utility program and select the USB Debug Adapter by clicking the radio button. (You can click "Enumerate USB" at first time of using this adapter). See Figure 6.
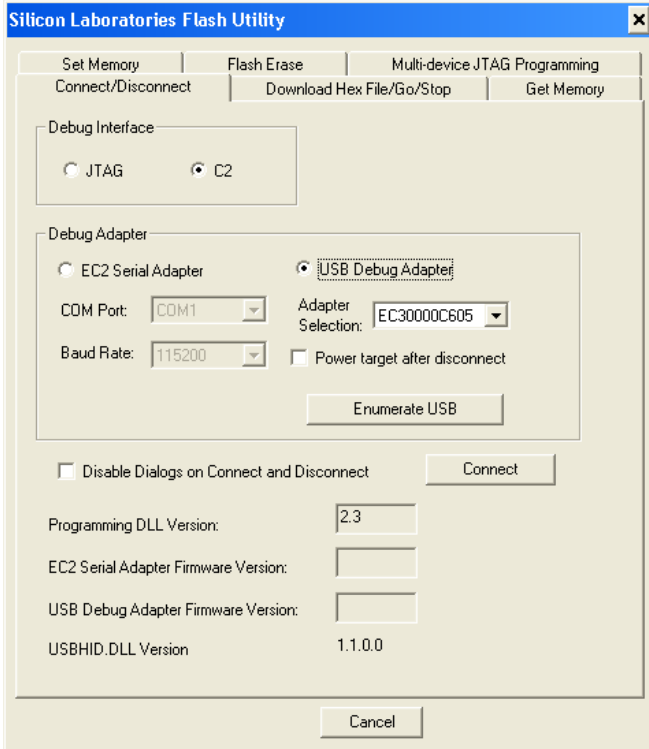

FIGURE 6. SILICON LAB FLASH UTILITY

2. Click "Connect" button in order to establish communication with this adapter. See Figure 7.

FIGURE 7. SILICON LAB CONNECTED GUI

Program will notify you if that connection is successful.

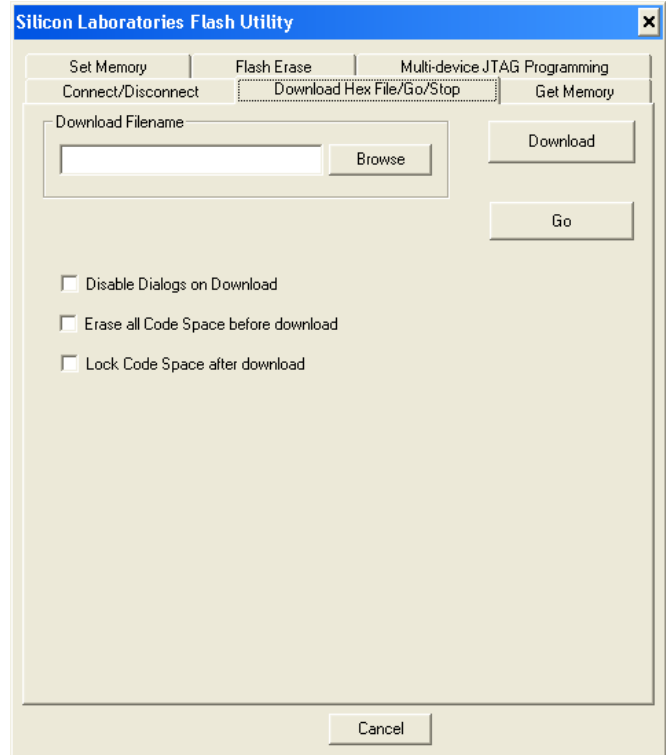3. Go to "Download Hex File/Go/Stop" tab. See Figure 8.

FIGURE 8. SILICON LAB USB DEBUG ADAPTER

4. Click "Browse" button to go select the directory were the xxx.hex file is located.

5. Click "Download" button.

6. After download is successful, go back to "Connect/Disconnect" tab and hit "Disconnect" button.

7. Disconnect USB Debug Adapter from the programming connector.

8. The USB dongle/motherboard are now ready to run with the updated firmware. Remember, you may need an updated GUI for your specific device.

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