

- The CP2130 Evaluation Kit contains the following:
- CP2130 evaluation board (pictured)
- Mini-USB cable
- CP21xx Installation DVD
- Quick Start Guide (this document)

The CP2130 USB-to-SPI smart-interface family provides a simple solution for connecting Serial Peripheral Interface (SPI) based designs to USB using a minimum of components and PCB space. The CP2130 includes a USB 2.0 full-speed function controller, USB transceiver, internal USB oscillator, integrated voltage regulator, One-Time Programmable ROM, and one SPI.

CP2130 USB-TO-SPI EVALUATION KIT QUICK-START GUIDE



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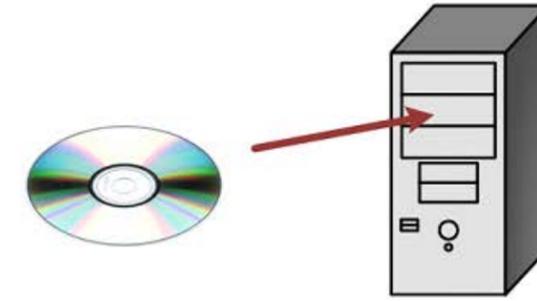
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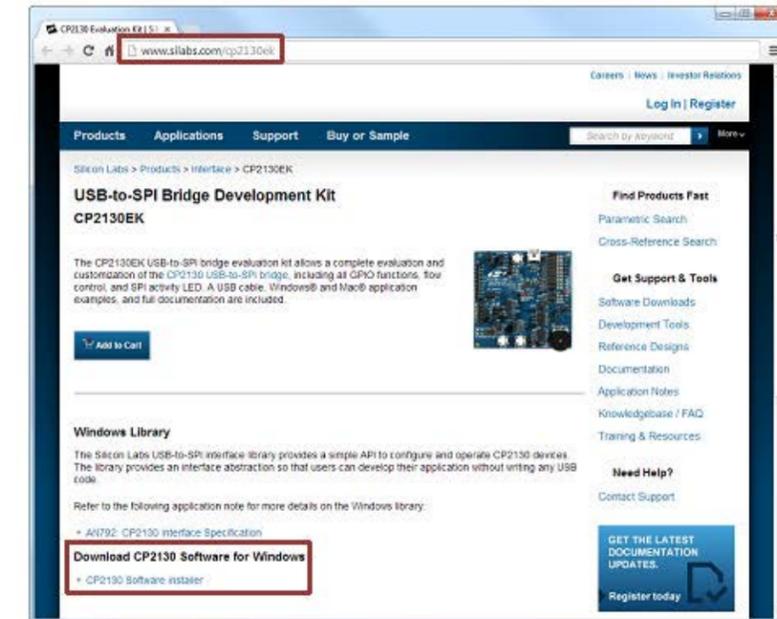
Mailing Address:
400 W. Cesar Chavez
Austin, TX 78701

A. Getting Started

- 1 Insert the DVD included in the kit to install the CP2130-related software. The latest version of this installer can also be downloaded from the web site by navigating to www.silabs.com/CP2130EK and clicking on the **Download** link for the appropriate operating system.



OR



<http://www.silabs.com/CP2130EK>

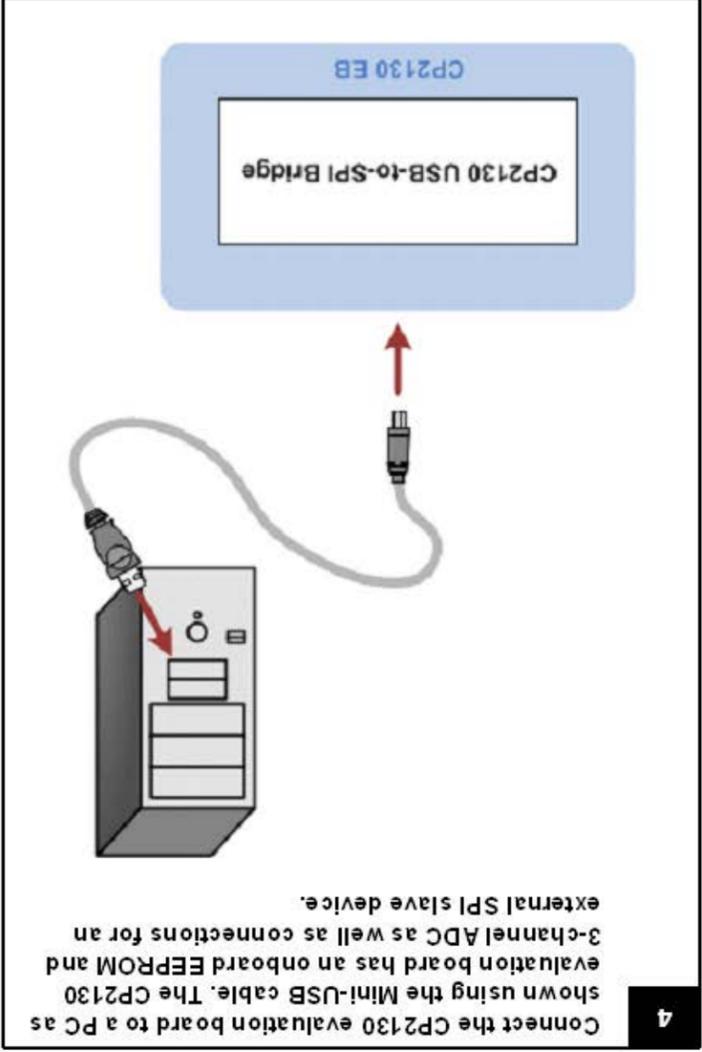
- 2 Run **CP2130_Setup** from the download location. Inserting the DVD will automatically run the installer.



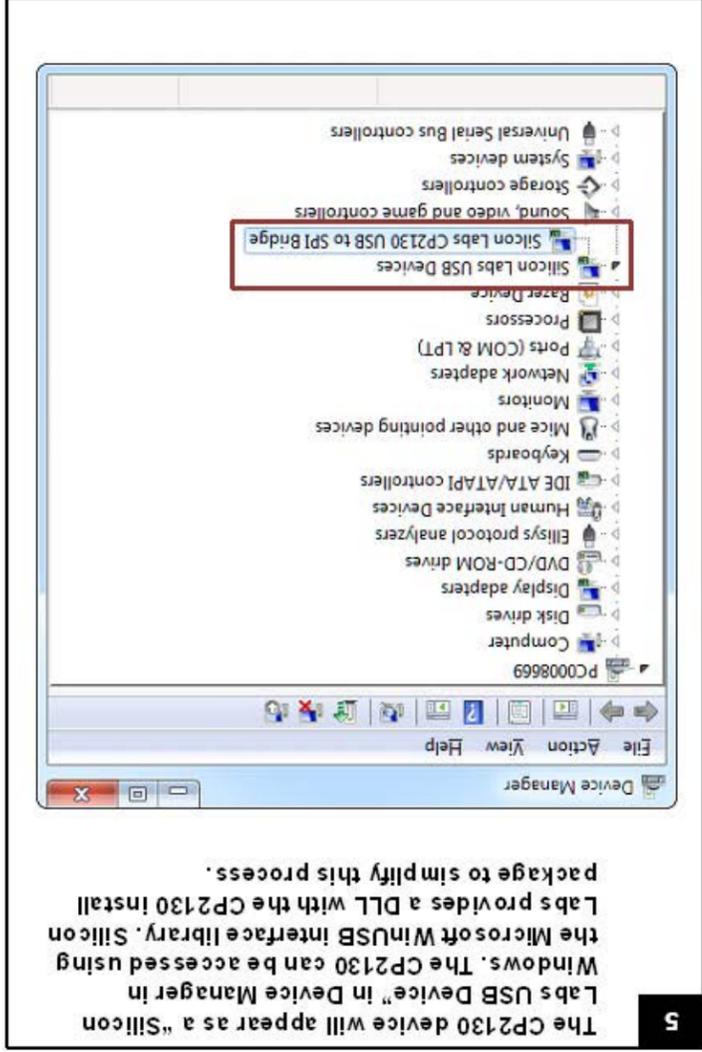
Note: Windows installation process shown.

- 3 Click on **Next**; accept the license agreement, and complete the installer steps. The installer may prompt you to restart the PC when installation completes.

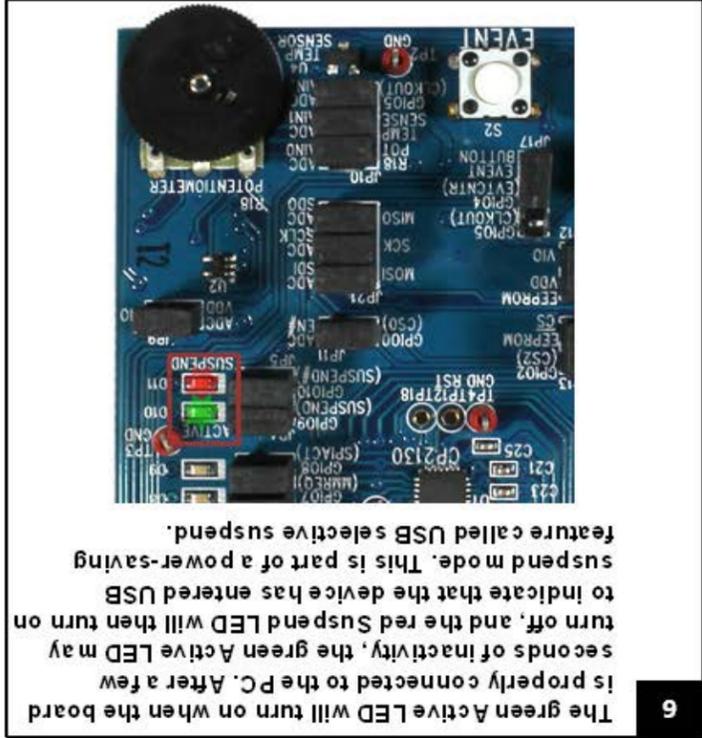




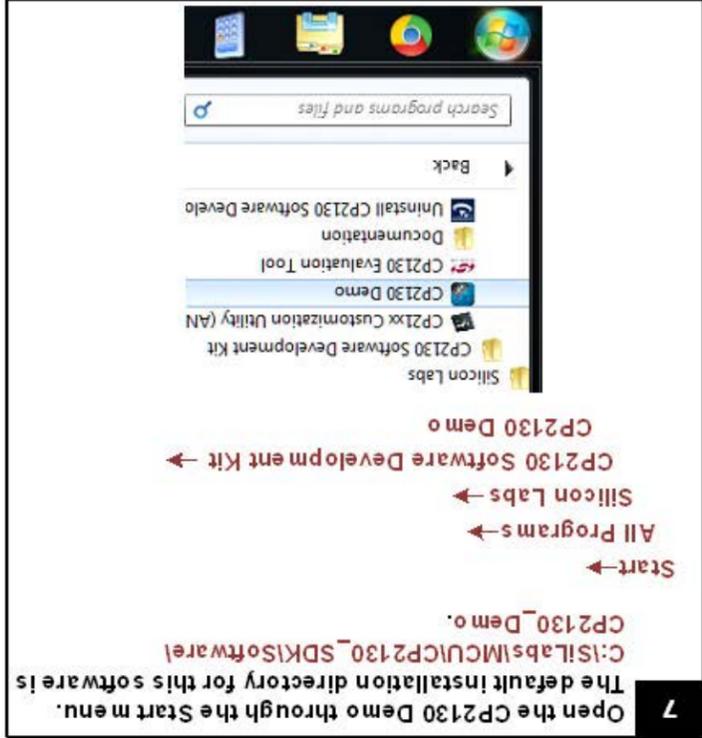
4 Connect the CP2130 evaluation board to a PC as shown using the Mini-USB cable. The CP2130 evaluation board has an onboard EEPROM and 3-channel ADC as well as connections for an external SPI slave device.



5 The CP2130 device will appear as a "Silicon Labs USB Device" in Device Manager in Windows. The CP2130 can be accessed using the Microsoft WinUSB interface library. Silicon Labs provides a DLL with the CP2130 install package to simplify this process.

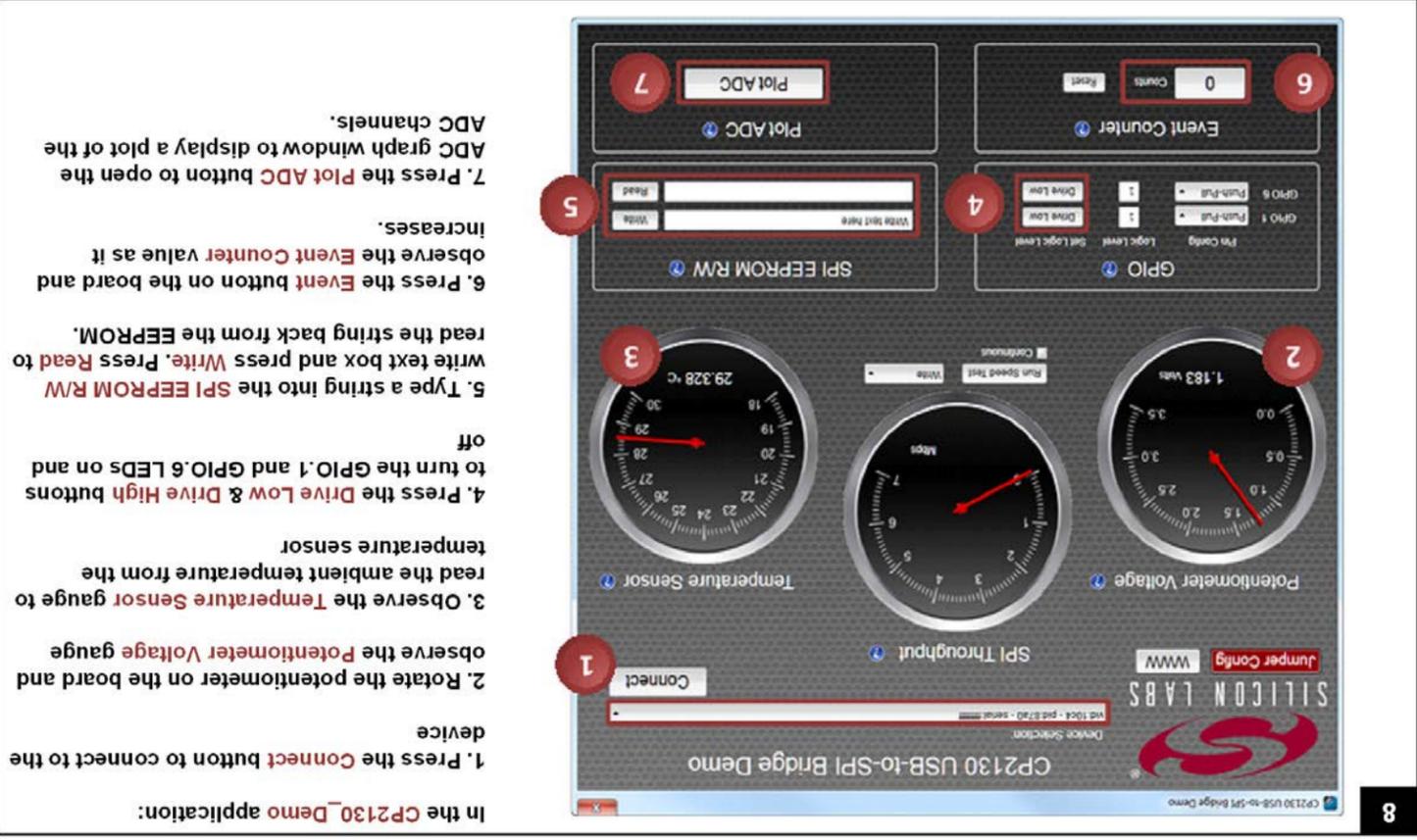


6 The green Active LED will turn on when the board is properly connected to the PC. After a few seconds of inactivity, the green Active LED may turn off, and the red Suspend LED will then turn on to indicate that the device has entered USB suspend mode. This is part of a power-saving feature called USB selective suspend.



7 Open the CP2130 Demo through the Start menu. The default installation directory for this software is C:\SiliconLabs\MCU\CP2130_SDK\Software\CP2130_Demo.

B. Relevant Documentation



8 In the CP2130_Demo application:
 1. Press the **Connect** button to connect to the device
 2. Rotate the potentiometer on the board and observe the **Potentiometer Voltage** gauge
 3. Observe the **Temperature Sensor** gauge to read the ambient temperature from the temperature sensor
 4. Press the **Drive Low & Drive High** buttons to turn the GPIO.1 and GPIO.6 LEDs on and off
 5. Type a string into the **SPI EEPROM R/W** write text box and press **Write**. Press **Read** to read the string back from the EEPROM.
 6. Press the **Event Counter** on the board and observe the **Event Counter** value as it increases.
 7. Press the **Plot ADC** button to open the ADC graph window to display a plot of the ADC channels.

Application Notes:
www.silabs.com/interface-appnotes
 • AN721: CP21xx Device Customization Guide
 • AN792: CP2130 Interface Specification

Device Information:
<http://www.silabs.com/smartinterface>

Data Sheets:
<http://www.silabs.com/smartinterface> → USB Connectivity Bridges → CP2130 → Documentation tab → Data Sheet section
 Users Guides
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