CY3280-SRM Universal CapSense™ Radial Slider Module Kit Quick Start

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1. Kit Contents

Each CY3280-SRM Universal CapSense™ Radial Slider Module Kit contains:
- CY3280-SRM Universal CapSense Module Board
- CY3280-SRM Universal CapSense Module Board CD/DVD
- CY3280-SRM Quick Start
- 3 mm Acrylic Overlay with adhesive
- 1.5 mm Acrylic Overlay with adhesive

Universal CapSense Module boards are available for purchase separately, or as part of combination kits. Do visit www.cypress.com/shop for more information.

Prerequisites:
- Universal CapSense Controller Board
- PSoC MiniProg
- I2CUSB Bridge
- USB Mini-B Cable

2. Module Hardware

This module is comprised of components and sensors detailed in the following figure.
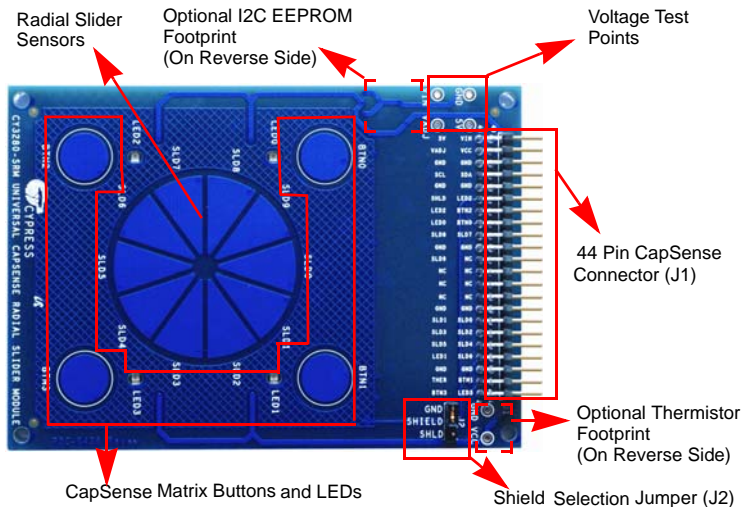
The module consists of four CapSense buttons, one radial slider (with twelve sensors), and four LEDs. These are interfaced to the CapSense controller board via 44 pin receptacle connector (J1). A three pin jumper (J2) is provided for selection between shield electrode and ground. The board also incorporates an optional I2C EEPROM and thermistor that are not populated by default.

3. Getting Started

The CY3280-SRM board can be used with any of the UCC (Universal CapSense controller) boards. The example firmware is available on the CD/DVD. Insert the CY3280-SRM Kit CD/DVD into the CD/DVD drive of your PC, and follow the instructions on the screen to complete installation.

4. Setup the Board

This section demonstrates the setup of CY3280-SRM with CY3280-20x34 Universal CapSense Controller. Similar procedure is used for all UCC boards.

■ Connect the CY3280-SRM board to the CY3280-20x34 Universal CapSense Controller board's P2 receptacle connector.
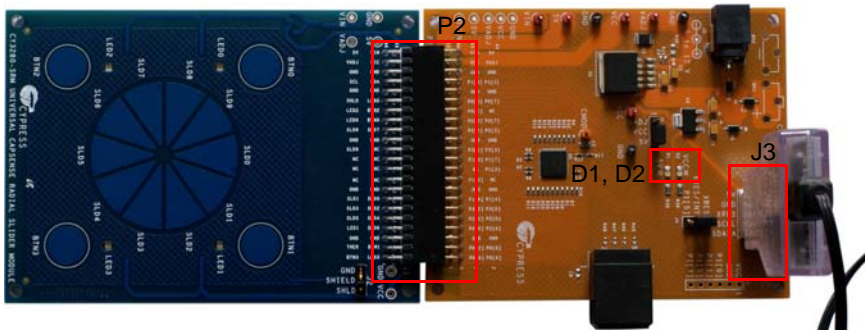
■ In CY3280-20x34 UCC board place shunts on pins 2 and 3 of J1 and pins 1 and 2 of J4.
■ In CY3280-SRM board place shunts on pins 2 and 3 of J2.
■ Connect your computer to the CY3280-20x34 Universal CapSense Controller board's ISSP connector (J3) using a PSoC MiniProg and a USB cable.
■ Open **PSoC Programmer** by going to **Windows Start > All Programs > Cypress > PSoC Programming 3.5 > PSoC Programmer**.
■ Select MiniProg 1 from Port Selection view in the Programmer window.
■ Message *Successfully Connected to MINIProg…..MINI Version 1.75* appears in the Actions pane.

   Note: If MiniProg Version is older than 1.75. Go to Utilities and click on Update Firmware icon.

■ Confirm that the Programming Parameters are as shown in the figure on page 4.
■ Click **File Load**, navigate to, and open the *CY3280_20x34_PD_Project1.hex* file on the CD/DVD at: *\Firmware\HexFiles*
■ Click the **Program** icon. After the programming is complete **Programming Succeeded** appears in the **Actions** pane.
■ Click **Toggle Device Power** button. The Power LEDs D1, D2 on the CY3280-20x34 UCC board lights up. Corresponding LEDs on other UCC board's lights up.
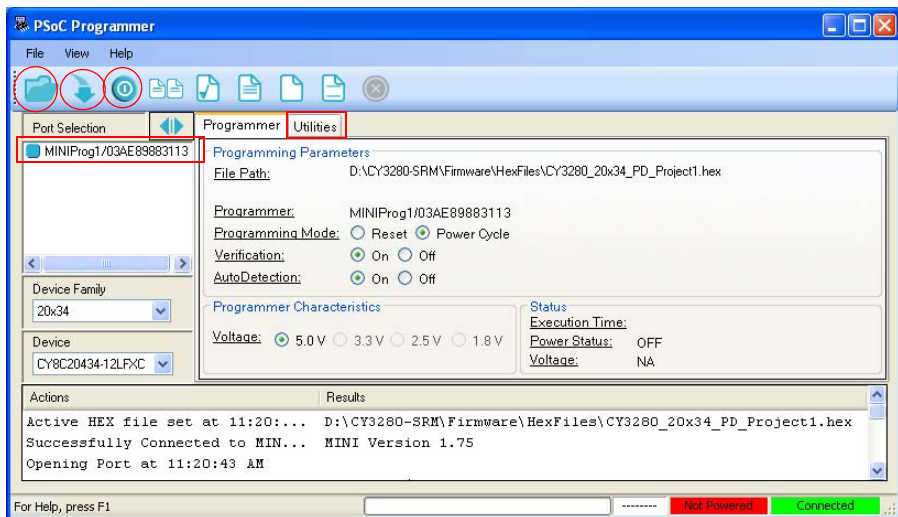
5. Test the Board

■ Touch the Radial Slider on the CY3280-SRM module board with your finger. The corresponding LED on the CY3280-SRM module board lights up.

■ Touch a button with your finger. The corresponding LED on the module board lights up, indicating the button you are touching. You can touch Multiple buttons at the same time. You can use radial slider and buttons at the same time.

■ For a more in-depth look at this sample project, including instructions on displaying the computed slider position in real-time, do see readme file on CD/ DVD at: *\Firmware\20x34_CSA\PSoC Designer\PD project1\Readme.pdf*

6. Design Support and Resources

A wealth of information about PSoC® Designer and CapSense™ Best Practices is available on the www.cypress.com web site, and more is frequently added. For knowledge base articles, customer forums, and online application support, visit www.cypress.com/go/support.

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