

CY3216 Modular Programmer Kit Quick Start

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Getting Started

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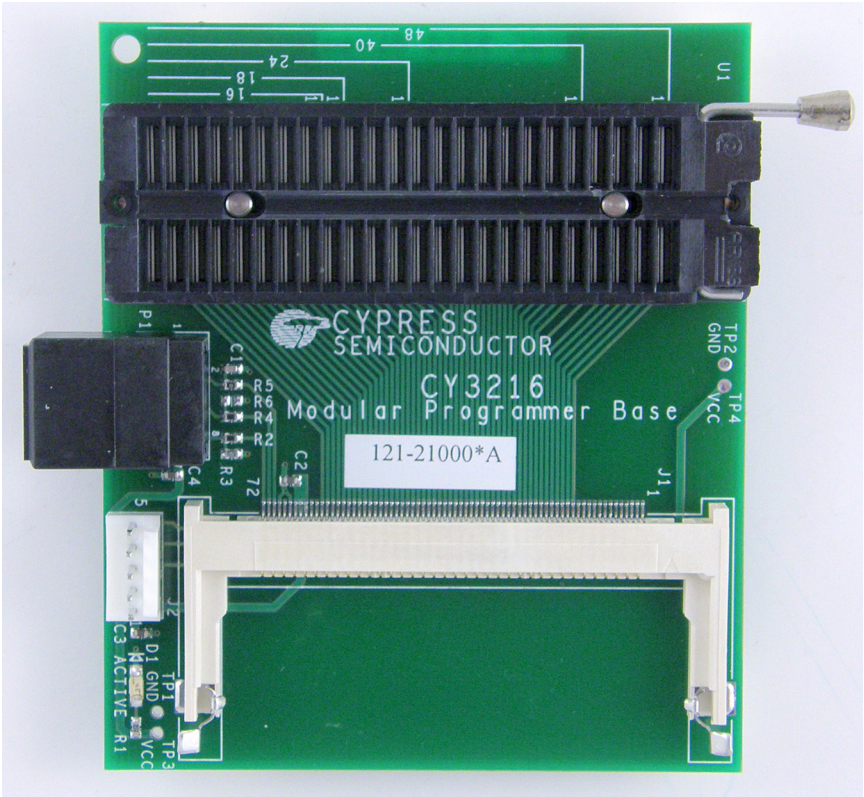
1. Review Kit Contents

- CY3216 Modular Programmer
- CY3216 Adapter Card #1
- CY3216 Adapter Card #2
- CY3216 Adapter Card #3
- PSoC MiniProg
- USB Retractable A to Mini B cable
- CY3216 CD
- Printed Documentation

2. Overview

The Cypress Modular Programmer allows PSoC®, enCoRe™ II, Wireless enCoRe II, and enCoRe III devices to be programmed.



3. Features

Modular Programmer features Include:

- Complete programming support for all PSoC, enCoRe II, Wireless enCoRe II, and enCoRe III devices in PDIP packages
- Programming support for PSoC, enCoRe II, Wireless enCoRe II, and enCoRe III devices in surface mount packages with purchase of the appropriate surface-mount adapter socket (sold separately)
- Support for programming from ICE-Cube
- Support for programming from MiniProg
- Modular Programmer supports many other Cypress devices by obtaining the appropriate inexpensive adapter card and socket adapter (if needed)

4. Programming Devices using CY3216 Modular Programmer

PSoC, enCoRe II, Wireless enCoRe II, and enCoRe III devices can be programmed on the Modular Programmer using the ICE-Cube or MiniProg programmer.

4.1 Using ICE-Cube

To program the devices follow these steps

1. Using a USB cable, plug the ICE-Cube into a PC that has the PSoC Programmer application installed. Make sure the ICE-Cube is powered on.
2. Connect the ISSP cable to the ICE-Cube through the RJ45 adapter.
   Note: Use the yellow ISSP cable for enCoRe II or Wireless enCoRe II.
3. Place the 5-pin end of the ISSP cable on the 5-pin header (J2) of the Modular Programmer Base.
4. Place the device in the socket on the Modular Programmer Base. Any PDIP package is supported natively. Surface mount device requires a surface-mount to PDIP adapter (sold separately). See the Programming Support Matrix table for recommended surface-mount to PDIP adapters.

5. Make sure the appropriate module supporting your specific device is in the memory-style DIMM slot of the Modular Programmer Base. See the Programming Support Matrix table to determine the module and orientation of the module that support your device. Note that the correct side of the module (A or B) must be connected to the DIMM connector, and the module must be snapped properly in place.
6. Launch the PSoC Programmer application.
7. In the programming application, select the Port as the ICE-Cube by choosing "USB/xxxxCxxx" where the "x" is specific to the USB device ID of your ICE-Cube. The ICE-Cube may be the only device that is not an LPT port.
8. First select the appropriate device family then select the device to be programmed.
9. Load the programming file using the **File Load** button.
10. Program

4.2 Using MiniProg Programmer

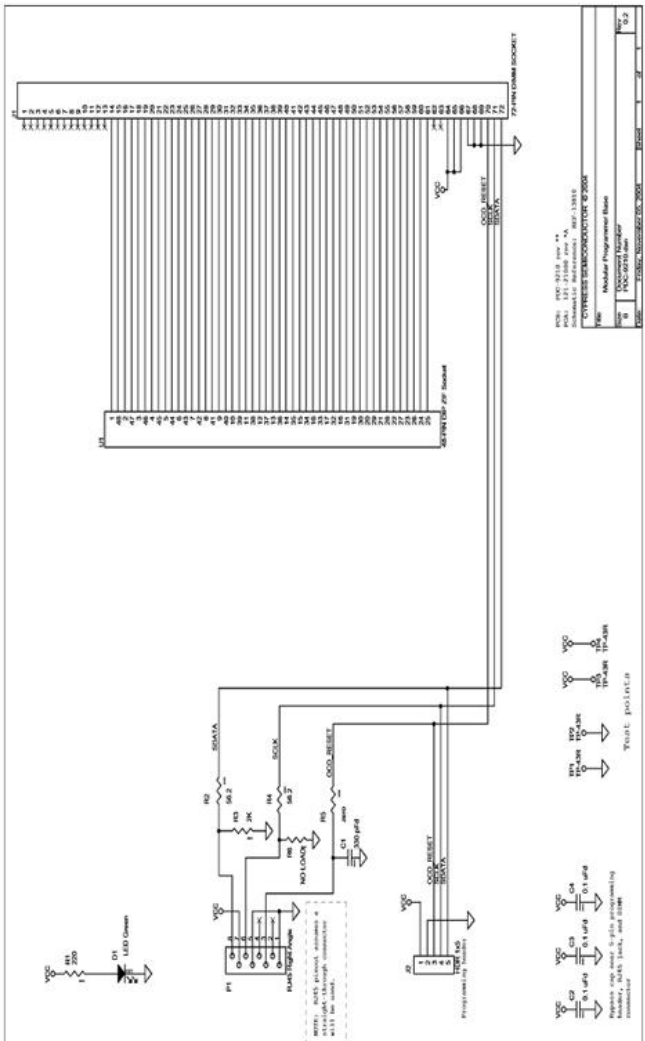
Alternatively, a MiniProg programmer is used for programming rather than the ICE-Cube. To program the devices follow these steps

1. Using a USB cable, plug the MiniProg programmer into a PC that has the PSoC Programmer application installed.
2. Place the MiniProg programmer on the 5-pin header (J2) of the Modular Programmer Base.
3. Place the device in the socket on the Modular Programmer Base. Any PDIP package is supported natively. Surface mount device requires a surface-mount to PDIP adapter (sold separately). See Programming Support Matrix table for recommended surface-mount to PDIP adapters.
4. Make sure the appropriate module supporting your specific device is in the memory-style DIMM slot of the Modular Programmer Base. See Programming Support Matrix table to determine module and orientation of the module that support your device. Note that the correct side of the module (A or B) must be connected to the DIMM connector, and the module must be snapped properly in place.
5. Launch the PSoC Programmer application.

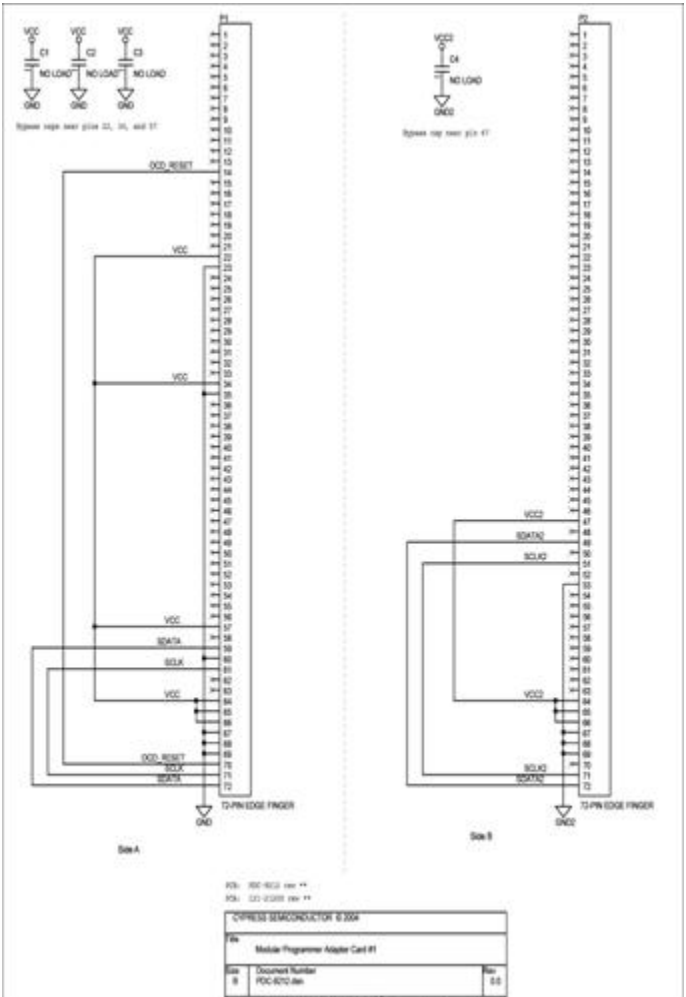
6. In the programming application, select the Port as the MiniProg. After selecting the MiniProg, make sure in the **Results** column of the window that an unexpected firmware version was not found. If necessary, update the MiniProg's firmware by choosing **Upgrade Firmware** in the **Utilities** menu.
7. First select the appropriate device family then select the device to be programmed.
8. Load the programming file using the **File Load** button.
9. Program

5. Schematics

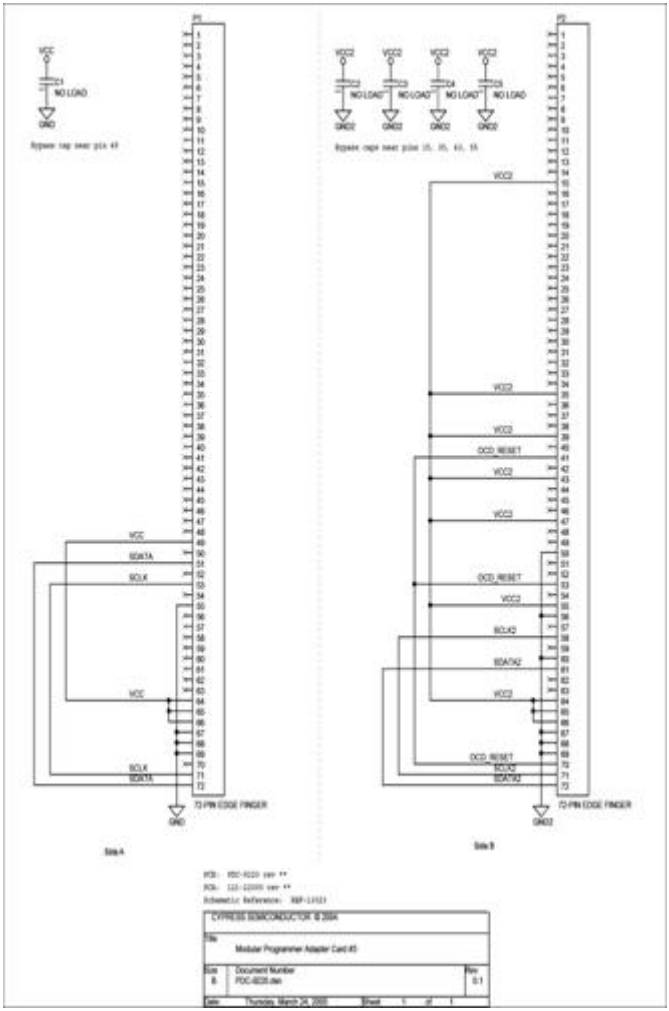
5.1 CY3216 Main Board schematic



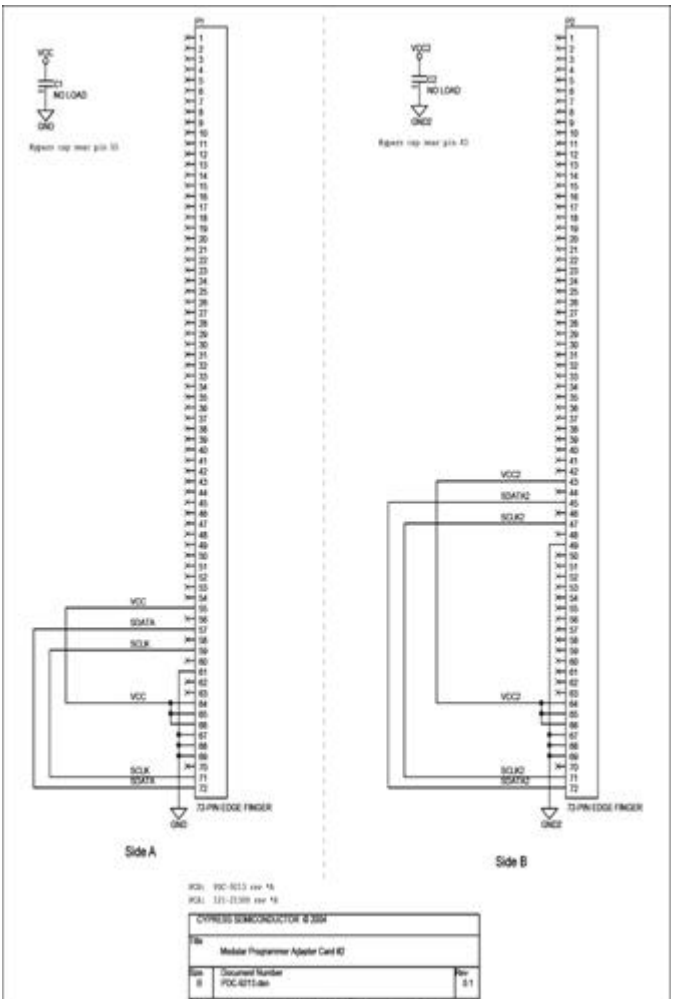
5.2 CY3216-01 matrix card schematic



5.3 CY3216-02 matrix card schematic



5.4 CY3216-03 matrix card schematic



Design Support and Resources

PSoC Development Software Online

All PSoC development software tools are available for download online. For PSoC Designer 5.0 visit www.cypress.com/psocdesigner, and for PSoC Programmer visit www.cypress.com/psocprogrammer.

PSoC Device Selector Guide

In the PSoC Application Notes section, search for AN2209: The Device Selection Guide for PSoC. It is a useful tool for determining exactly which PSoC device you should use for a specific design project.

PSoC Development Tools Selector Guide

In the PSoC Application Notes section, search for AN2402: The PSoC Development Tools Selector Guide. This is a complete catalog and description of all the development tools that support PSoC devices and when to use them in your design cycle— from concept to production.

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