

Release Notes srn51287

CY8CKIT-001 Kit

Release Date: June 16, 2009

Thank you for your interest in the CY8CKIT-001 PSoC® Development Kit. This document lists installation requirements and describes kit updates and changes.

Kit Features

The CY8CKIT-001 PSoC Development Kit is designed to aid hardware, firmware, and software developers in building their own systems around Cypress's PSoC, PSoC3, and PSoC5 architectures. Foremost in the list of features, the included development board provides the flexibility to configure the power domains. Input power to the board can be provided in one of two ways: 1) a 12V 1A wall wart power supply and 2) a 9V alkaline battery.

This full featured board incorporates three onboard linear regulators that can be used to power peripherals and PSoC modules at voltages between 1.7V and 5.5V. These regulators include a fixed 5V 1A linear regulator, a fixed 3.3V 300 mA linear regulator, and a 1.5V to 5.5V 300 mA adjustable regulator. The board also provides the ability to separate the PSoC core VCC rail into two separate rails, analog and digital. In addition, the board is capable of separating the I/O VCC rails, providing flexibility to power the I/O ports at different voltages.

The board is equipped with a 2x16 alphanumeric LCD module capable of 1.8V to 5.5V I/O. Also included are a mini-B full speed USB interface, a female DB9 serial communications interface, and a 12-pin wireless radio module interface supporting modules such as Artaflex's Falcon series of CyFi™ Low Power RF wireless modules.

The board also has a prototyping area containing a small bread board complete with I/O port sockets nearby, multipurpose LEDs, mechanical push buttons, and a multipurpose variable resistor. In addition, three capacitive sensing elements (two buttons and a 5 segment slider) are included on the board allowing evaluation of CapSense™ touch-sensing applications.

Lastly, the board has four GPIO expansion slots around the periphery providing expandability of the I/O to external boards. The board was designed with modularity in mind and as a result, it supports the installation of various PSoC processor modules. This allows the user to choose specific modules to connect to the board based on the desired features of PSoC, PSoC3, and PSoC5 devices.

Note: The DVK uses the JTAG TMS/TCK pins (pins p1.0 and p1.3) to support the 2-pin serial debugger interface that is functionally equivalent to ARM's Serial Wire Debug (SWD). Do not use these pins in a design if the debugger is needed. Use the PIN editor to move from these pins if they are allocated in a design.

CY8CKIT-001 PSoC Development Kit includes:

- PSoC Development Board
- PSoC CY8C29 Family Processor Module
- PSoC CY8C38 Family Processor Module
- MiniProg3 Programmer and Debugger
- 12V Wall Wart Power Supply

- Printed Documentation
 - Quick Start Guide
 - Schematics
- A Kit CD, which includes
 - CY8C38 Family Datasheet
 - CY8C38 Family Silicon errata
 - CY8C29 Family Datasheet
 - PSoC Creator™ Application and Release Notes
 - PSoC Designer™ Application and Release Notes
 - PSoC Programmer Application and Release Notes
 - PSoC Development Board Release Notes
 - Design Files and firmware example projects written to evaluate the features of the PSoC devices supported by this kit.

System Requirements and Recommendations

PSoC Designer Requirements for PSoC based Development:

The following minimum configuration is required for installation of the PSoC Designer application:

- PC running Windows operating system - Windows XP SP2
- 1 GB memory
- 600 MB of hard disk space
- USB 2.0

Software requirements include:

- PSoC Programmer 3.05 or later (PSoC Programmer 3.10 is available on the kit CD).NET Framework 2.0
- Microsoft Internet Explorer 6.0 (SP1)
- Adobe Reader (optional, but needed to view PDF files)

PSoC Creator Requirements for PSoC3/PSoC5-based Development:

The following minimum configuration is required for installation of the PSoC Creator application:

- PC running Windows operating system - Windows XP SP2
- 2 GB memory
- 1 GB of hard disk space
- USB 2.0

Software requirements include:

- PSoC Programmer 3.10

- Windows Installer 3.1
- .NET Framework 2.0 SP1
- Keil Compiler (optional, but needed to build a PSoC3 projects)
- Adobe Reader (optional, but needed to view PDF files)

Known Issues and Workaround

The following tables capture the known issues with the CY8CKIT-001 PSoC Development Kit specific to the following board revisions:

- a. PSoC Development Board (121R-46100 REV**)
- b. CY8C38 Family Processor Module (121R-49400 REV4.0.2)
- c. CY8C29 Family Processor Module (121R-46400 REV*A)

PSoC Development Kit (CY8CKIT-001)

N/A

PSoC CY8C38 Family Processor Module Kit (CY8CKIT-009)

Items	Affected Items	Revision	Fix Status
1. VDDD test point is missing red protective insulator.	CY8C38 Family Processor Module Board	REV4.0.2	Will be fixed in REV**

1. VDDD test point is missing red protective insulator.

- **PROBLEM DEFINITION**
The VDDD test point is placed in such a position on the PCB, that the test point cannot be hand soldered without removing the protective insulator. Some boards may have this insulator removed.
- **SCOPE OF IMPACT**
Users of the VDDD test point.
- **WORKAROUND**
Use caution when clipping scope probes to this test point, ensuring the probe clip(s) do not touch other pins or components near the test point.
- **FIX STATUS**
Will be fixed in REV** assembly of the module board.

PSoC CY8C29 Family Processor Module Kit (CY8CKIT-008)

N/A

Software Installation and Removal

If you use the Cypress Update Manager to uninstall PSoC Programmer, PSoC Creator, and the PSoC Development Kit Software, the Update Manager may hang after uninstalling the second item. The workaround is to use an alternative uninstall tool, such as the Windows Control Panel, or by right-clicking the Cypress Update Manager on the Windows Taskbar and

selecting close. Windows indicates that the Update Manager is unresponsive and asks permission to terminate that program. Allow Windows to close the Cypress Update Manager. Then relaunch the Update Manager and uninstall the remaining item.

To uninstall **any** software related to the PSoC Development Kit, you must first uninstall the PSoC Development Kit software. When that process is complete you can uninstall PSoC Creator and related programs.

Documentation

On the Kit CD, refer to

- CY8CKIT-001 PSoC Development Kit User's Guide

After installing the PSoC Designer and PSoC Programmer software, refer to the documentation as needed:

- PSoC Designer > Help > Documentation
- PSoC Programmer > User Guide

After installing the PSoC Creator software, refer to the documentation as needed:

- PSoC Creator > Help > Getting Started

Other documents included with release are located in the `\Documentation` subdirectory of the PSoC Creator installation directory or the kit CD itself. The default location is:

C:\Program Files\Cypress\PSoC Creator\1.0\PSoC Creator\Documentation

You may access this directory from within PSoC Creator under **Help > Documentation > Reference Material**. Documents include (but are not limited to):

- PSoC Creator Component Author Guide
- Customization API Reference



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