Release Notes

CY8CKIT-001 PSoC® Development Kit

Release Date: October 30, 2012

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 help hardware, firmware, and software developers in building their own systems around Cypress's PSoC 1, PSoC 3, and PSoC 5LP architectures. The development board gives you the flexibility to configure the power domains. The board can be powered in one of two ways: 12-V 1-A power supply and 9-V alkaline battery.

This full featured board incorporates three onboard linear regulators that can be used to power peripherals and PSoC modules at voltages between 1.7 V and 5.0 V. These regulators include a fixed 5 V 1-A linear regulator, a fixed 3.3 V 300-mA linear regulator, and a 1.5 V to 5.0 V 300-mA adjustable regulator. The board also provides the ability to separate the PSoC core VDD rail into two separate rails, analog and digital. In addition, the board is capable of separating the I/O VDD rails, providing flexibility to power the I/O ports at different voltages.

The board is equipped with a 2×16 alphanumeric LCD module capable of 1.8 V to 5.0 V 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 has a prototyping area containing a small breadboard, 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 five-segment slider) are included on the board, allowing evaluation of CapSense® touchsensing applications.

Finally, the board has four GPIO expansion slots around the periphery providing expandability of the I/O to external boards. The over-voltage and reverse-voltage protection is added on 5-V and 3.3-V lines on the expansion slots. The board is designed with modularity in mind and, as a result, it supports the installation of various PSoC processor modules. This allows you to select specific modules to connect to the board based upon the desired features of PSoC 1, PSoC 3, and PSoC 5LP 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 you need the debugger. Use the PIN editor to move from these pins if they are allocated in a design.

The CY8CKIT-001 PSoC Development Kit includes:

- PSoC Development Board
- PSoC CY8C28 Family Processor Module
- PSoC CY8C38 Family Processor Module
- PSoC CY8C58LP Family Processor Module
- MiniProg3 Programmer and Debugger
- 12-V Wall Power Supply
- Printed Documentation
  - Quick Start Guide

- Schematics
- Kit DVD, which includes
  - PSoC Creator™ Application
  - PSoC Designer™ Application
  - PSoC Programmer Application
  - 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 1-based Development:
See the PSoC Designer release notes, available at the default installation location:
`<Install_Directory>:\PSoC Designer\<version>\Documentation\Designer Specific Documents\ReleaseNotes.pdf`

PSoC Creator Requirements for PSoC 3 and PSoC 5LP-based Development:
See the PSoC Creator release notes, available at the default installation location:
`<Install_Directory>:\PSoC Creator\<version>\PSoC Creator\Documentation \release_notes.pdf`

Kit Updates

Over-voltage and reverse-voltage protection on 5-V and 3.3 V lines of the expansion slots is added on the main DVK.

The CY8C38 Family processor module (121R-49400) and CY8C58LP Family processor module (121R-54600) code examples are updated with PSoC Creator 2.1 Service Pack

The CY8C28 Family Processor module (120-09547-0) code examples are updated with the PSoC Designer 5.3.

Known Issues and Workarounds

For a real-time list of known problems and solutions for PSoC Creator that may affect this kit, see our Online Knowledge Base.

Documentation

On the kit DVD, see the CY8CKIT-001 PSoC Development Kit User Guide

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

- **PSoC Designer > Help > Documentation**
- **PSoC Creator > Help > Topics > Getting Started**
- **PSoC Programmer > Documentation > User Guide**

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

`<Install_Directory>:\PSoC Creator\<version>\PSoC Creator\Documentation`

Technical Support

For assistance, go to http://www.cypress.com/go/support or contact our customer support at +1(800) 541-4736 Ext. 8 (in the USA), or +1 (408) 943-2600 Ext. 8 (International).

Additional Information

- For more information about PSoC Creator functionality and releases, visit the PSoC Creator web page: http://www.cypress.com/go/psoccreator
- For more information about PSoC Designer functionality and releases, review the user guide and release notes on the PSoC Designer web page: http://www.cypress.com/go/psocdesigner
- For more information about PSoC Programmer, and supported hardware, visit the PSoC Programmer web page: http://www.cypress.com/go/psocprogrammer
- For a list of trainings on PSoC Creator, visit http://www.cypress.com/?rID=40547
- For a list of trainings on PSoC Designer, visit http://www.cypress.com/?rID=40543

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