



Release Notes

CY8CKIT-007 PSoC[®] 3 Precision Analog Voltmeter Demonstration Kit

Release Date: January 5, 2011

Thank you for your interest in the CY8CKIT-007 PSoC[®] 3 Precision Analog Voltmeter Demonstration Kit. This document lists installation requirements, limitations, and known issues with the kit.

System Requirements and Recommendations

PSoC Creator[™] 1.0 Production
PSoC Programmer 3.12.3 or later

The following configuration is required to install PSoC Creator: PC running Windows[®] XP (SP2 or higher), Vista, or Windows 7

Hardware/Operation System Requirements	Minimum	Recommended
Processor speed	2 GHz	2 GHz Dual Core
RAM	2 GB	3 GB
Free hard drive space	1 GB	1 GB
Screen resolution	1024x768	1280x1024
USB	Full Speed	2.0 Hi-Speed

Note CD/DVD drive is required for installation with no web access.

PSoC Creator requires the following software:

Software Prerequisites	Minimum Version
Microsoft Internet Explorer (not IE8 beta)	7
.NET Framework	2.0 SP1
Adobe Reader (to view PDF documentation)	6
Windows Installer	3.1
PSoC Programmer	3.12
Keil Compiler	8.16

Note To install and run PSoC Creator, you may also need to install additional software. If these programs are not already installed, the Cypress Installer will guide you through the process.

Installation

To install, insert the kit CD into your PC's CD-ROM drive. If the installer does not start automatically, manually start it by executing *cyautorun.exe* in the CD's root directory. Follow the instructions to complete installation.

Updates

The example project is updated to support PSoC Creator 1.0 Production.

Note There are no changes in the hardware of the CY8CKIT-007 Precision Analog Voltmeter Demonstration Kit (Rev.** PCA).

Limitations and Known Issues

Firmware Limitations

- The project provided in the kit is for evaluation and is not intended as a basis for development.
- The firmware provided does not support the USB interface. The USB component is not included in the project.
- The “Correlated Double Sample” method is implemented to correct offset voltage on the Delta Sigma ADC. More information about this method is found in [AN2226](#), available on the Cypress web site.

Hardware Limitations

- Single AA cell operation with the PSoC 3 boost converter is not implemented. Support for this feature is planned in the next version of PSoC 3 silicon.
- The effective number of bits (ENOB) on the Voltmeter Demonstration Kit is 17 bits for the thermocouple and test lead inputs.
- Data taken, using ES2 silicon, shows test lead measurement accuracy to be within the range of -0.32% to $+0.06\%$, at specific input levels within the ± 30 V range.

Documentation

Kit documents are located in \Documentation folder on the kit CD. Refer to:

- *CY8CKIT-007_PSoC 3 Precision Analog Voltmeter Kit_Guide.pdf*
- *CY8CKIT-007_PSoC 3 Precision Analog Voltmeter Quick Start_Guide.pdf*
- *PSoC 3_CY8C38_Family_Datasheet.pdf*
- *Creator_Known_Problems_and_Solutions_v1_0.pdf*

The release notes are available at the following location: C:\Program Files\Cypress\PSoC 3 Voltmeter Demo Kit\1.0\Documentation\Release_Notes. Refer to:

- *CY8CKIT-007_Release_Notes.pdf*
- *PSoC_Creator_Release_Notes_1_0.pdf*
- *PSoC_Programmer_Release_Notes_3_12_3.pdf*

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

- PSoC Creator → Help → Documentation

The default location for PSoC Creator documents is:

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



Cypress Semiconductor
198 Champion Court
San Jose, CA 95134-USA
Phone(USA): 800.858.1810
Phone (Intl): 408.943.2600
<http://www.cypress.com>

Copyrights

© Cypress Semiconductor Corporation, 2011. The information contained herein is subject to change without notice. Cypress Semiconductor Corporation assumes no responsibility for the use of any circuitry other than circuitry embodied in a Cypress product. Nor does it convey or imply any license under patent or other rights. Cypress products are not warranted nor intended to be used for medical, life support, life saving, critical control or safety applications, unless pursuant to an express written agreement with Cypress. Furthermore, Cypress does not authorize its products for use as critical components in life support systems where a malfunction or failure may reasonably be expected to result in significant injury to the user. The inclusion of Cypress products in life-support systems application implies that the manufacturer assumes all risk of such use and in doing so indemnifies Cypress against all charges.

Any Source Code (software and/or firmware) is owned by Cypress Semiconductor Corporation (Cypress) and is protected by and subject to worldwide patent protection (United States and foreign), United States copyright laws and international treaty provisions. Cypress hereby grants to licensee a personal, non-exclusive, non-transferable license to copy, use, modify, create derivative works of, and compile the Cypress Source Code and derivative works for the sole purpose of creating custom software and or firmware in support of licensee product to be used only in conjunction with a Cypress integrated circuit as specified in the applicable agreement. Any reproduction, modification, translation, compilation, or representation of this Source Code except as specified above is prohibited without the express written permission of Cypress.

Disclaimer: CYPRESS MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THIS MATERIAL, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Cypress reserves the right to make changes without further notice to the materials described herein. Cypress does not assume any liability arising out of the application or use of any product or circuit described herein. Cypress does not authorize its products for use as critical components in life-support systems where a malfunction or failure may reasonably be expected to result in significant injury to the user. The inclusion of Cypress' product in a life-support systems application implies that the manufacturer assumes all risk of such use and in doing so indemnifies Cypress against all charges.

Use may be limited by and subject to the applicable Cypress software license agreement.

PSoC Designer™, PSoC Creator™, and Programmable System-on-Chip™ are trademarks and PSoC® is a registered trademark of Cypress Semiconductor Corp. All other trademarks or registered trademarks referenced herein are property of the respective corporations.

Flash Code Protection

Cypress products meet the specifications contained in their particular Cypress PSoC Data Sheets. Cypress believes that its family of PSoC products is one of the most secure families of its kind on the market today, regardless of how they are used. There may be methods, unknown to Cypress that can breach the code protection features. Any of these methods, to our knowledge, would be dishonest and possibly illegal. Neither Cypress nor any other semiconductor manufacturer can guarantee the security of their code. Code protection does not mean that we are guaranteeing the product as "unbreakable."

Cypress is willing to work with the customer who is concerned about the integrity of their code. Code protection is constantly evolving. We at Cypress are committed to continuously improving the code protection features of our products.