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	1024×768	1280×1024
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).

[+] Feedback

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`

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