

SAR ADC and PrISM Code Example

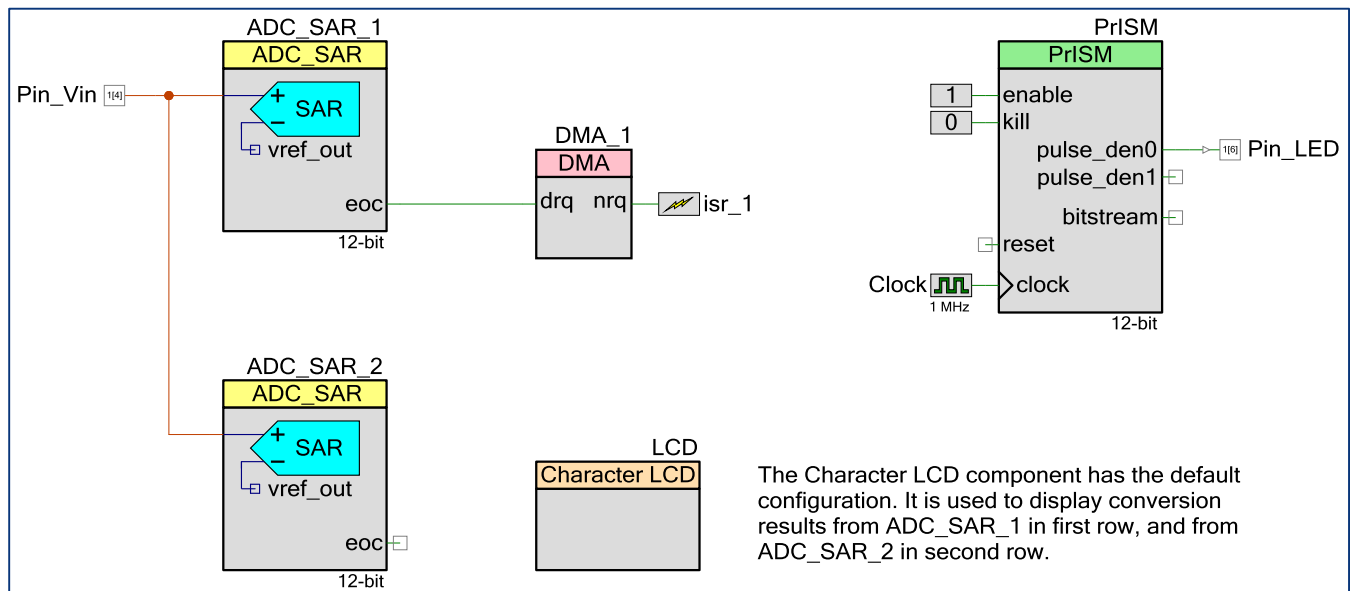
Objective

This example demonstrates the SAR ADC measurements and transferring results using ISR and DMA to the LCD and PrISM (Precision Illumination Signal Modulation).

Procedure

1. The CY8CKIT-001 DVK board should be configured to the default switch and jumper settings. Verify that J11 (VR_PWR) is jumpered to ON and SW3 (VDD SELECT) is set to 5V.
2. Connect P1[4] (Pin_Vin) to VR pin, P1[6] (Pin_LED) to the LED1 on DVK board.
3. Build the project and program the hex file on to PSoC5 device using MiniProg3.
4. Power cycle the device and observe the results on the LCD.
5. Change voltage level using the potentiometer, R20 (VR), and observe changed contrast on the LED1.

Schematic



PSoC Resources

Cypress provides a wealth of data at www.cypress.com to help you to select the right PSoC device for your design, and quickly and effectively integrate the device into your design. For a comprehensive list of resources, see [KBA86521](#), [How to Design with PSoC 3](#), [PSoC 4](#), and [PSoC 5LP](#). The following is an abbreviated list for PSoC:

- **Overview:** [PSoC Portfolio](#), [PSoC Roadmap](#)
- **Product Selectors:** [PSoC 1](#), [PSoC 3](#), [PSoC 4](#), or [PSoC 5LP](#). In addition, [PSoC Creator](#) includes a device selection tool.
- **Datasheets:** Describe and provide electrical specifications for the PSoC 3, PSoC 4, and PSoC 5LP device families.
- **CapSense Design Guides:** Learn how to design capacitive touch-sensing applications with the PSoC 3, PSoC 4, and PSoC 5LP families of devices.
- **Application Notes** and **Code Examples:** Cover a broad range of topics, from basic to advanced level. Many of the application notes include code examples.
- **Technical Reference Manuals (TRM):** Provide detailed descriptions of the architecture and registers in each of the PSoC 3, PSoC 4, and PSoC 5LP device families.
- **PSoC Training Videos:** These videos provide step-by-step instructions on getting started building complex designs with PSoC.
- **Development Kits:**
 - [CY8CKIT-042](#) and [CY8CKIT-040](#), PSoC 4 Pioneer kits, are easy-to-use and inexpensive development platforms. These kits include connectors for Arduino™ compatible shields and Digilent® Pmod™ daughter cards.
 - [CY8CKIT-049](#) is a series of very low-cost prototyping platform for sampling PSoC 4 devices.
 - [CY8CKIT-030](#) and [CY8CKIT-050](#) are designed for analog performance. They enable you to evaluate, develop, and prototype high-precision analog, low-power, and low-voltage applications powered by PSoC 3 and PSoC 5LP, respectively.
 - [CY8CKIT-001](#) is a common development platform for all PSoC family devices.
- The [MiniProg3](#) device provides an interface for flash programming and debug.

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