Scanning Comparator (Common Mode) Code Example

Objective

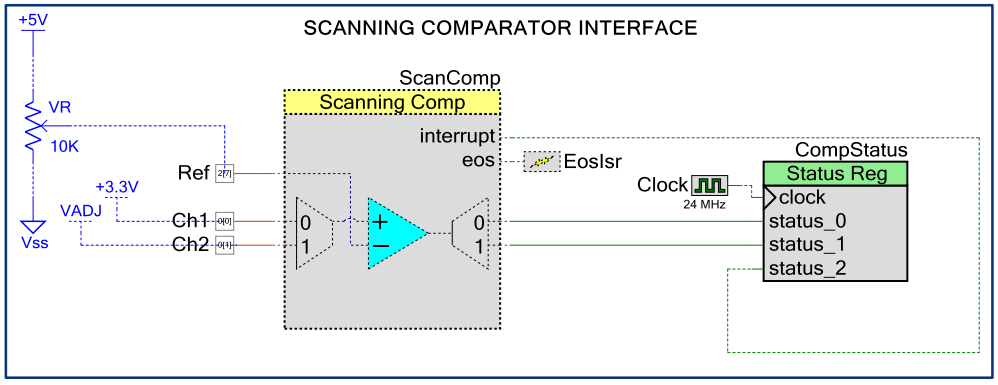
This example demonstrates operation of the Scanning Comparator (Common Mode) component with the PSoC Creator Software.

Procedure

This project is pre-configured to run on the CY8CKIT-001 PSoC Development Kit (DVK) hardware platform but can be re-configured to suit other target hardware.

1. Connect the voltage divider (potentiometer) to pin "Ref" (P2[7], P1[7] for the BLE device).
2. Connect 3.3V to pin "Ch1" (P0[0]).
3. Connect VADJ to pin "Ch2" (P0[1]).
4. Build the project and program the hex file into the target device.
5. Adjust the potentiometer so that its voltage level becomes greater than the voltage levels for "Ch1" or "Ch2".
6. Observe the states of the comparator outputs for each channel in the first row of the LCD. The second row of the LCD reflects the state of the interrupt output and the result of the comparison for each channel.

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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