8-Bit Current Digital to Analog Converter (IDAC8) Example
1.2

Features

- Range 255 µA
- Current source
- Software driven output strobe
- Data source CPU or DMA

General Description

This example project demonstrates the working of the IDAC8 current source mode with an output range of 255 µA.

Development kit configuration

1. This project is written for a 2X16 LCD display as the one available in the Cypress kit CY8CKIT-001.
2. Build the project and program the hex file on to the target device using MiniProg3.
3. Connect pins as described below and power cycle the device.
4. Observe the results on the LCD

Project configuration

This project consists of the IDAC8 component with an analog output pin. Pin_1 is connected to the IDAC output to capture the output current from the IDAC. The output pin, Pin_1 is mapped to port P0(6) of CY8CKIT-001. The Character LCD is used to display the test name.

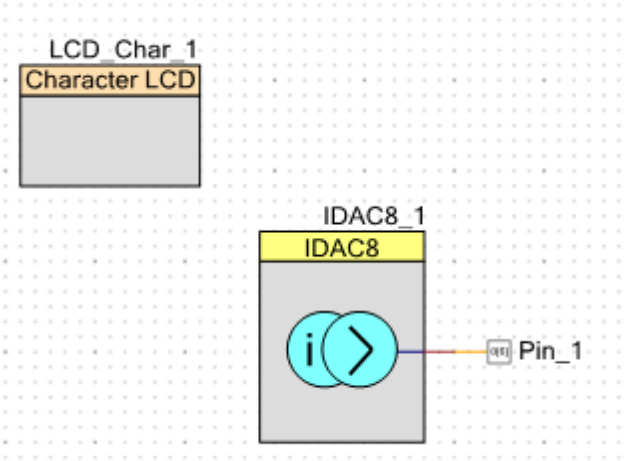

Figure 1 – Project Top Level Schematic

Project description

In the main function all components are started. The IDAC range is set to 255uA and the value is set to 100. Use a multi-meter in current mode to verify the output.

Expected Results

LCD displays:
IDAC8 DEMO
The output current is measured using the multimeter.
The converted analog output current of the IDAC8 is equivalent to the digital value set using the API().

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