

# 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.

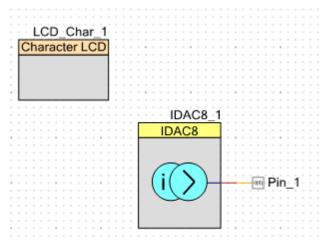


Figure 1 – Project Top Level Schematic

### **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().



#### PSoC® Creator™ Component Data Sheet Example

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