Voltage Digital to Analog Converter example project 1.2

Features

- Digital Value : 0xC8
- Voltage Range : 0- 1.020(4mv/bit)

General Description

This example project demonstrates the working of the VDAC8 with set digital value and low speed.

Development kit configuration

1. Used CY8CKIT-001 DVK1 kit.
2. Build the project and program the hex file on to target device using MiniProg3.
3. Connect pins as described below and power cycle the device.
4. Observe the results on the multi-meter.

Project configuration

This project consists of the VDAC8 component with an analog output pin. The analog output pin is which is connected to I/O port P0[4] of CYC8KIT-001 is used to observe the VDAC8 output on a multi-meter. Character LCD is used to display the test name and Range configuration.

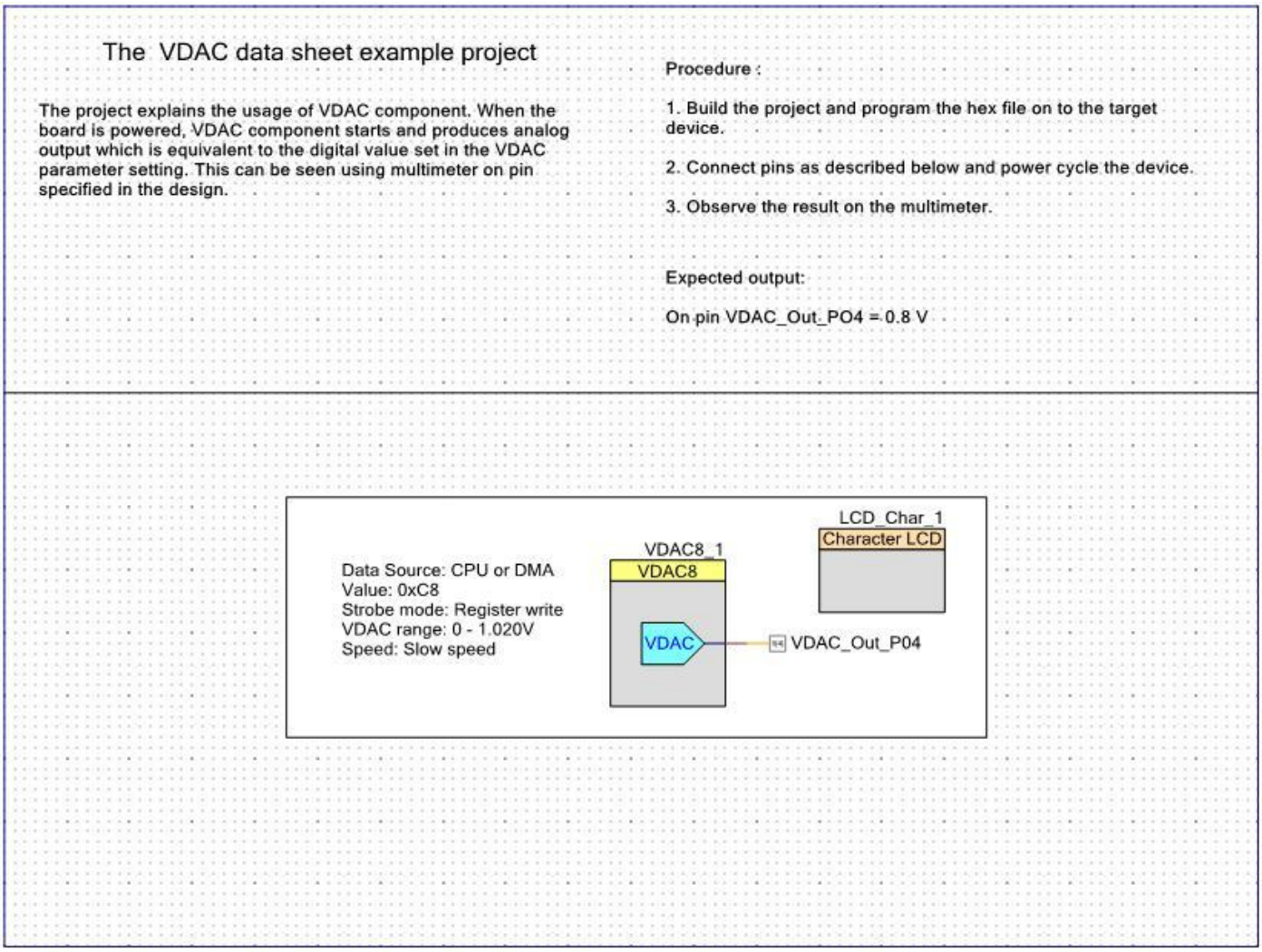

Figure 1. Top design schematic.

Project description

In main function VDAC8 component is started. VDAC8 is configured with value 0xC8. VDAC8 output can be seen in pin P04 as it is shown in Figure 1 (Top design schematic)

Expected Results

Character LCD displays the following:
VDAC DEMO
Range : 0-1.020V

The converted analog output voltage of the VDAC8 is equivalent to the digital value set using the API().

Vout = 0.8V