

# DieTemp Example

1.3

#### **General Description**

This example project demonstrates the working of the DieTemp component.

## **Development kit configuration**

- 1. This project is written with 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. Observe the result on the LCD which is connected to P2[6:0] of CY8CKIT-001.
- 4. The Die Temperature value is displayed on the first line of the LCD and the current status value is displayed on the second line of the LCD.

#### **Project configuration**

This project consists of a DieTemp component and a LCD module. The Die temperature measured is displayed on the LCD. First line of the LCD displays the temperature and second line displays the DieTemp status.

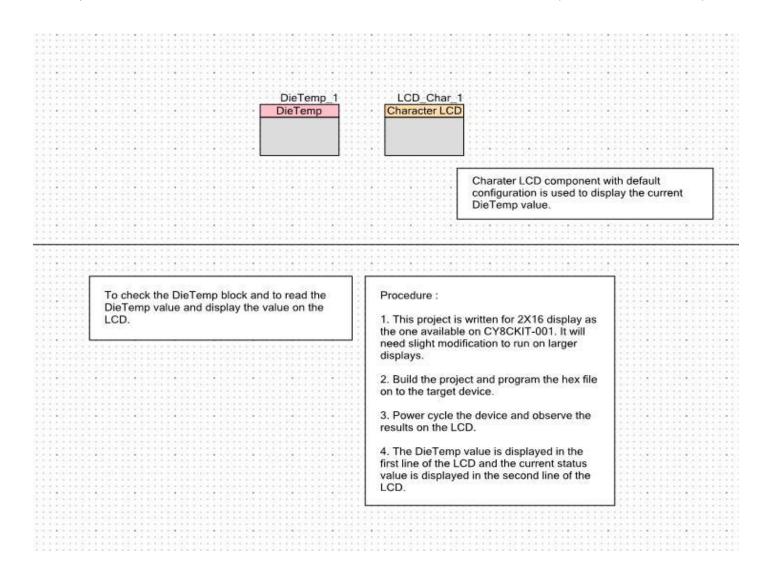


Figure 1. Top design schematic.

#### **Project description**

In the main function all components are started. GetTemp API of DieTemp is called and the temperature value and status returned by this function is displayed on the Char LCD. For proper CharLCD component usage refer to the corresponding datasheet.

### **Expected results**

Char LCD should display the following things:

Temp = (The current room temperature)

Status = 00



© Cypress Semiconductor Corporation, 2009-2012. The information contained herein is subject to change without notice. Cypress Semiconductor Corporation assumes no responsibility for the use of any circuitry other than circuitry embodied in a Cypress product. Nor does it convey or imply any license under patent or other rights. Cypress products are not warranted nor intended to be used for medical, life support, life saving, critical control or safety applications, unless pursuant to an express written agreement with Cypress. Furthermore, Cypress does not authorize its products for use as critical components in life-support systems where a malfunction or failure may reasonably be expected to result in significant injury to the user. The inclusion of Cypress products in life-support systems application implies that the manufacturer assumes all risk of such use and in doing so indemnifies Cypress against all charges.

PSoC® is a registered trademark, and PSoC Creator™ and Programmable System-on-Chip™ are trademarks of Cypress Semiconductor Corp. All other trademarks or registered trademarks referenced herein are property of the respective corporations.

Any Source Code (software and/or firmware) is owned by Cypress Semiconductor Corporation (Cypress) and is protected by and subject to worldwide patent protection (United States and foreign), United States copyright laws and international treaty provisions. Cypress hereby grants to licensee a personal, non-exclusive, non-transferable license to copy, use, modify, create derivative works of, and compile the Cypress Source Code and derivative works for the sole purpose of creating custom software and or firmware in support of licensee product to be used only in conjunction with a Cypress integrated circuit as specified in the applicable agreement. Any reproduction, modification, translation, compilation, or representation of this Source Code except as specified above is prohibited without the express written permission of Cypress.

Disclaimer: CYPRESS MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THIS MATERIAL, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Cypress reserves the right to make changes without further notice to the materials described herein. Cypress does not assume any liability arising out of the application or use of any product or circuit described herein. Cypress does not authorize its products for use as critical components in life-support systems where a malfunction or failure may reasonably be expected to result in significant injury to the user. The inclusion of Cypress' product in a life-support systems application implies that the manufacturer assumes all risk of such use and in doing so indemnifies Cypress against all charges.

Use may be limited by and subject to the applicable Cypress software license agreement.

