**Overview**

Demo code using the Temperature Indicator Module of the PIC18F57Q84 (code built with MCC classic)

Graphical user interface, text, application

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* SW driver needed for this temperature measurement based on ADC: ADC, FVR, MEMORY
* UART1 is just used for the display and demo use only (can remove this function if not needed
* Using a terminal emulator, connect to the board’s virtual COM port (9600 baud)

**Main Program Flow**

* When MCU resets, it reads the flash area “Device Information Area”
  + Gain = Gain value stored in the DIA table
  + Offset = Offset Value stored in the DIA table
* MCU will then read the data from temperature indicator module and calculate the temperature based on the temperature equation shown in [DS40002213D](https://ww1.microchip.com/downloads/aemDocuments/documents/MCU08/ProductDocuments/DataSheets/PIC18F27-47-57Q84-Data-Sheet-40002213D.pdf) (page 896)

**Main Program Execution**

Type any key in the terminal window to start the Temperature Indicator Module conversions based on the following configurations (typing another key in the terminal window will pause the conversions):

1. In “main.c”, if #define DebugMode is enabled:

Graphical user interface, application

Description automatically generated

…the UART will print out the multiple register values used in the temperature calculation

Text

Description automatically generated

1. In “main.c”, if #define DebugMode, is disabled (commented out)Graphical user interface

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…the UART will only print out the temperature values in DegC and DegF.

Text

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