Curiosity Development Board

Quick Start Guide

Overview

The Curiosity Development Board layout and schematic can be found on the Microchip web site:

www.microchip.com/curiosity

This board provides flexibility for experimentation through an application header with ground (GND) and supply voltage (V_{DD}) connections. It also includes a set of indication LEDs, mTouch® button and push-button switches, and a variable potentiometer. Additionally, it features a Bluetooth module footprint and a mikroBUS™ header to accommodate a variety of plug-in Click™ Boards that can be used in application development. Curiosity is fully compatable with MPLAB® Code Configurator and MPLAB X v3.05 or later.

> **Note:** Low Voltage Programming (LVP) must be enabled in MPLAB X.

Board Power-Up

Power is supplied by the USB connector (J2) on the back of the board.

Demonstration Program

After applying power to the Curiosity Development Board via the USB connector J2 on the backside of the board, LED (D7) will automatically turn on. Turn POT1 clockwise to increase the brightness of the LED (D7) and counterclockwise to decrease its brightness. Press the push button (S1) to turn on LED (D4) and touch the mTouch button (S3) to turn on LED D6.

Board Layout

The Curiosity Development Board is shown in Figure 1. A PIC16F1619 20-pin microcontroller is populated in the center of the demo board next to the identification label U4. The Curiosity Development Board can also accommodate 14- and 8-pin, 8-bit microcontrollers in the same socket (U4). The PIC16F1619 is initially connected to the following components:

- Push Button (S1)
- Potentiometer (POT1)
- Master Clear Reset Button (S2)
- mTouch Button (S3)
- LEDs (D4 – D7)
- mikroBUS Header (J35, not populated)
- RN4020 Bluetooth Module Footprint (U6, not populated)

The board is flexible and allows individual experiments. A power and ground header (J7), as well as isolation headers (J39, J40, J3 – J6 and J13) are provided to expand the flexibility of the Curiosity Development Board.

FIGURE 1:   CURIOSITY DEVELOPMENT BOARD LAYOUT

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