

# Curiosity Development Board

## Summary

Your next embedded design idea has a new home. The Curiosity Development Board (part number DM164137) is a cost-effective, fully integrated 8-bit development platform targeted at first-time users, makers and those seeking a feature-rich, rapid prototyping board. Designed from the ground-up to take full advantage of Microchip's MPLAB® X integrated development environment, the Curiosity Development Board includes an integrated programmer/debugger, and requires no additional hardware to get started. The Curiosity Development Board supports all low-voltage, programming-enabled 8-bit PIC® MCUs from 8 to 20 pins.

## Your Tool for Function Enablement

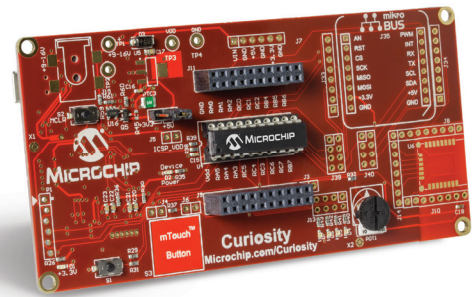
The Curiosity Development Board is the perfect platform to harness the power of modern 8-bit PIC microcontrollers. Its layout and external connections offer unparalleled access to the Core Independent Peripherals (CIPs) available on many newer 8-bit PIC MCUs. These CIPs enable you to integrate various system functions onto a single MCU, simplifying the design and keeping system power consumption and BOM cost low.

## Internet of Things (IoT) Ready

The Curiosity Development Board can help you make your IoT design idea a reality. Out of the box, the development board offers several options for user interface—including physical switches, an mTouch® capacitive button and an on-board potentiometer. A full complement of accessory boards is available via the MikroElektronika MikroBus™ interface footprint. In addition, Bluetooth® Low Energy communication can easily be added using an available Microchip RN4020 module.

## Share Your Curiosity

Do you need a few ideas on architecting your next design? The Curiosity Development Board is the perfect tool for sharing and acquiring new design ideas. To spur creativity, Microchip offers a series of tutorials, complete with bill of materials, user code and application notes. These helpful design tips can be found at [www.microchip.com/curiosity](http://www.microchip.com/curiosity). We also encourage you to join the Microchip forums, share your ideas and become part of the community.



## More Than a Starting Point

The Curiosity Development Board gives you more for your money. It can be operated as an all-in-one development platform, or it can be customized to suit your individual tastes. The Curiosity Development Board was designed to expand its capabilities as your needs grow.

- **Multiple Power Options** – The Curiosity Development Board allows you to select from USB power, 5V internal or 5V external sources for the ultimate in flexibility
- **Expansion with MikroBus** – With the option to plug in MikroElektronika Click™ boards, the Curiosity Development Board gives you access to nearly 100 inexpensive add-on boards, which can add capabilities ranging from GPS to alcohol sensing
- **Wireless Ready** – Add Bluetooth to any design with an available RN4020 wireless module

## Key Features

- Supports 8-, 14- and 20-pin 8-bit PIC microcontrollers\*
- Integrated programmer/debugger with USB interface
- Integrates seamlessly with MPLAB Code Configurator
- Various user interface options – mTouch button, analog potentiometer and physical switches
- Full compatibility with MPLAB X IDE and XC8 compiler
- Extensive user guide and how-to instructional documents available online

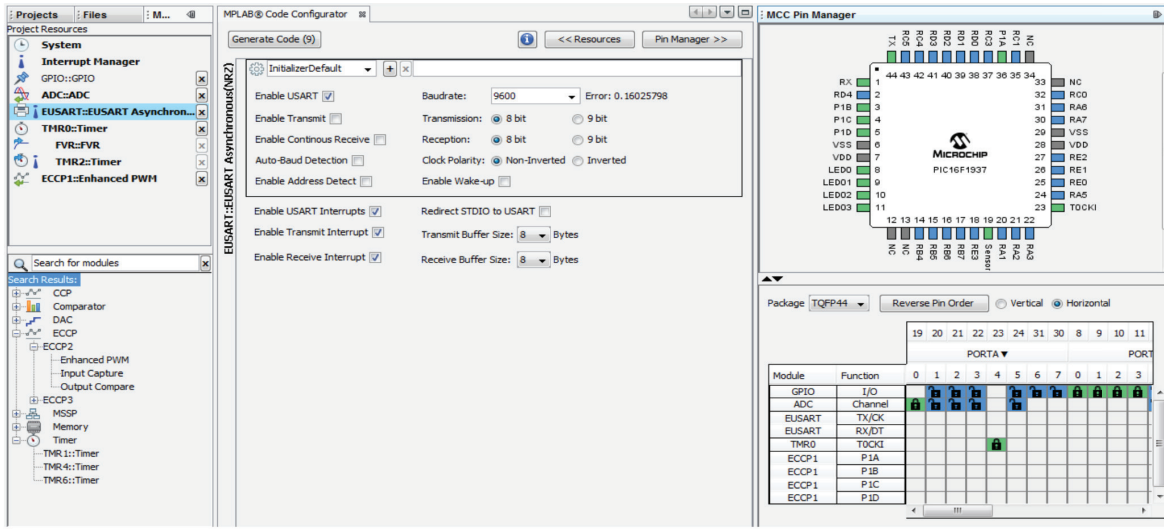
\*8-bit PIC MCUs with low-voltage programming capability



**MICROCHIP**

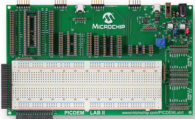
## Made for MPLAB Code Configurator

The Curiosity Development Board seamlessly integrates with MPLAB Code Configurator (MCC) for a modern embedded development experience. MCC is a free software plug-in that bridges our MCUs, development hardware and MPLAB X Integrated Development Environment (IDE). It allows you to generate easily modifiable, production-ready application code for many 8-bit PIC MCUs in just a few mouse clicks. Find out more at [www.microchip.com/MCC](http://www.microchip.com/MCC).



## Other Development Hardware for 8-bit PIC Microcontrollers

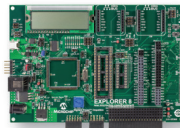
### PICDEM™ Lab II Development Board (DM1636046)



The PICDEM Lab II Development Board is an update to the popular PICDEM Lab Development Board. Its extreme flexibility and available peripherals make it an excellent choice for those

designing power supplies, motor drive circuits or other analog-intensive systems.

### Explorer 8 Development Kit (DM160228)



The Explorer 8 Development Kit is a full-featured development platform. It supports the largest number of 8-bit PIC microcontrollers ranging from 6 to 100 pins, making it the most versatile development board in our lineup.

Featuring available Bluetooth expansion, MikroElektronika Click board support, and an expansion header for add-on boards, this kit provides professional users with a comprehensive development experience.



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Microchip Technology Inc. • 2355 W. Chandler Blvd. • Chandler, AZ 85224-6199

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