

# MPLAB® PICKit™ 4

## In-Circuit Debugger/Programmer



### Summary

The MPLAB® PICKit™ 4 In-Circuit Debugger/Programmer allows fast and easy debugging and programming of PIC®, AVR® and SAM Flash Microcontrollers (MCUs) and dsPIC® Digital Signal Controllers (DSCs) using the powerful graphical user interface of MPLAB X Integrated Development Environment (IDE). The MPLAB PICKit 4 connects to your PC using a hi-speed 2.0 USB interface and can be connected to the target via the 8-pin single in-line header. The connector uses two device I/O pins and the reset line to implement programming and debug capabilities. An additional micro SD card slot and the ability to be self-powered from the target means you can take your code with you and program on the go.



The MPLAB PICKit 4 programs faster than its predecessor and comes ready to support PIC, AVR, SAM and dsPIC devices. Along with a wider target voltage, the MPLAB PICKit 4 supports advanced interfaces such as 4-wire JTAG and Serial Wire Debug with streaming Data Gateway, while being backward compatible for demo boards, headers and target systems using 2-wire JTAG and In-Circuit Serial Programming™. The MPLAB PICKit 4 has the performance you need to program and debug today's devices, while adding new features that provide flexibility for the future.

### Advantages

- Matches silicon clocking speed
  - Automatically programs as fast as the device will allow
- Target voltage of 1.20V to 5.5V
  - Wide target voltage supports a variety of devices
- Can supply up to 50 mA to the target
  - Option to be self-powered from the target (2.7V to 5.5V)
- Minimal current consumption at <100 µA from target
  - Portable USB-powered
  - Powered by a high-speed USB 2.0, no external power required
  - CE and RoHS-compliant
- 8-pin single in-line header
  - Supports advanced interfaces such as 4-wire JTAG and Serial Wire Debug with streaming Data Gateway
- Compatibility
  - Backward compatible for demo boards, headers and target systems using 2-wire JTAG and ICSP™
- Programmer-to-Go (PTG) support\*
  - SD card slot to hold program data
  - Program the target by pressing on the logo
- Cost effective
  - Features and performance at a fraction of the cost of comparable debugger/programmers
- Ease of maintenance and feature upgrade
  - Add new device support and features by installing the latest version of MPLAB X IDE, which is available as a free download at [www.microchip.com/mplabx](http://www.microchip.com/mplabx)

\*Feature will be added with a firmware upgrade

## Products Supported

The MPLAB PICKit 4 In-Circuit Debugger/Programmer supports PIC, AVR and SAM MCUs and dsPIC DSCs, and firmware is continually being upgraded to add support for new devices. For the most current list of supported parts, review the latest release notes located in MPLAB X IDE. New product support is released via MPLAB X IDE. Visit [www.microchip.com/mplabx](http://www.microchip.com/mplabx) to download free of charge.

## Host System Requirements

- Available USB port
- Microsoft Windows® 7 or later, MacOS® and Linux® operating systems

## Ordering Information

Part Number	Description	Availability
PG164140	<b>MPLAB® PICKit™ 4 In-Circuit Debugger/Programmer Kit</b> This kit includes: <ul style="list-style-type: none"><li>• One MPLAB PICKit 4 In-Circuit Debugger/Programmer</li><li>• One USB Cable</li></ul>	Now

## Other Development Tools from Microchip

Part Number	Development Tools	Description
SW006021-SUB	MPLAB® XC8 C Compiler PRO Subscription License	30-day C Compiler License for 8-bit PIC® and AVR® MCUs
SW006022-SUB	MPLAB XC16 C Compiler PRO Subscription License	30-day C Compiler License for 16-bit PIC MCUs and dsPIC® DSCs
SW006023-SUB	MPLAB XC32 C/C++ Compiler PRO Subscription License	30-day C Compiler License for 32-bit PIC and SAM MCUs
AC164164	PIC-IoT WG Development Board	Simple and effective way to connect to the Google Cloud IoT Core
DM164136	Curiosity High Pin Count (HPC) Development Board	Cost-effective, fully integrated 8-bit development platform for first-time users, Makers and those seeking a feature-rich rapid prototyping board
DM320104-BNDL	Amazon FreeRTOS Curiosity PIC32MZ EF Bundle	Develop small, low-powered edge devices that are easy to program, deploy, secure and maintain using Amazon FreeRTOS
DM320104	Curiosity PIC32MZ EF Development Board	Offers expansion capabilities making it an excellent choice for a rapid prototyping board in connectivity, IoT and general-purpose applications