MPLAB® ICD 3 In-Circuit Debugger/Programmer

All-In-One In-Circuit Debugger/Programmer Solution for Microchip Flash Products

MPLAB ICD 3 In-Circuit Debugger System is Microchip's most cost effective high-speed debugger for Microchip Flash Digital Signal Controller (DSC) and microcontroller (MCU) devices. It debugs and programs PIC® Flash microcontrollers and dsPIC® DSCs with the powerful, yet easy-to-use graphical user interface of MPLAB Integrated Development Environment (IDE).

The MPLAB ICD 3 In-Circuit Debugger probe is connected to the design engineer's PC using a high-speed USB 2.0 interface and is connected to the target with a connector compatible with the MPLAB ICD 2 or MPLAB REAL ICE™ systems (RJ-11).

As escalating microcontroller speeds quickly outpace traditional in-circuit emulating capabilities, MPLAB ICD 3 In-circuit Debugger provides significant performance enhancements for embedded systems designers. Programming times are typically 15X faster than previous systems. A 40 MHz dsPIC33 and high-speed FPGA yield faster communications, downloads and debugging.

The MPLAB ICD 3 In-Circuit Debugger System offers the following advantages:

- **Full-Speed Real-time Emulation**
  MPLAB ICD 3 In-Circuit Debugger is designed to support high-speed processors running at maximum speeds, allowing embedded engineers to debug applications on their own hardware in real time.

- **Ruggedized Interface**
  Protection circuitries are added to the probe drivers to guard from power surges from the target. V_{DD} and V_{PP} voltage monitors protect against over-voltage conditions, and all lines have over-current protection. The unit can provide power to a target (up to 100 ma).

- **Microchip Standard Connectivity**
  MPLAB ICD 3 In-Circuit Debugger comes standard with a standard Microchip debugging connector (RJ-11).

- **Compatibility**
  MPLAB ICD 3 supports all MPLAB ICD 2 headers.

- **Portable, USB-powered and RoHS-Compliant**
  Housed in a small (3.7″ x .8″) and attractive enclosure, the MPLAB ICD 3 In-Circuit Debugger is powered by the USB port, so an external power adapter is not required. MPLAB ICD 3 In-Circuit Debugger is CE and RoHS-compliant.

- **High-Speed Programming**
  Fast programming allows both quick firmware reload for fast debugging and for in-circuit re-programming. An internal 1 Mb buffer increases programming speed and lessens time to reload operating systems when switching to different processors.

- **Low Voltage Emulation**
  MPLAB ICD 3 supports target supply voltages from 2.0 to 5.5 volts.

- **Test Interface Module**
  Included with every MPLAB ICD 3 is a test module that can test all communications.

- **Ease of Maintenance and Feature Upgrade**
  Adding new device support and advanced features to MPLAB ICD 3 In-Circuit Debugger is just as simple as installing later versions of the MPLAB IDE, downloadable free from the Microchip web site: www.microchip. com/mplab. MPLAB ICD 3 In-Circuit Debugger is field upgradeable through a firmware download from MPLAB IDE.

- **Low Cost**
  MPLAB ICD 3 In-Circuit Debugger offers features and performance at a fraction of the cost of traditional emulator systems.

- **Powerful Debugging**
  High powered debugging with MPLAB IDE, supporting multiple breakpoints, stopwatch, source code file debugging in MPLAB's editor for quick program modification/debug.

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Products Supported

The MPLAB® ICD 3 In-Circuit Debugger/Programmer supports most Flash PIC MCUs and dsPIC DSCs. For the most current list of supported parts, review the latest release notes located in MPLAB IDE. The firmware is continually being updated to add support for new devices. As new device firmware is released, it can be downloaded free of charge at: www.microchip.com.

Host System Requirements

- PC-compatible system with an Intel Pentium® class or higher processor, or equivalent
- CD-ROM drive
- Available USB port
- Microsoft Windows® 2000, Windows XP® or Windows Vista®

Part Numbers and Ordering Information MPLAB® ICD 3 Products and Accessories		
Part Number	**Description**	**Availability**
DV164035	MPLAB® ICD 3 In-Circuit Debugger Kit, includes MPLAB ICD 3 In-Circuit Debugger probe. This kit contains: 1 MPLAB ICD 3 In-Circuit Debugger module, 1 USB cable, 1 6″ RJ-11 modular cable, 1 interface test module, 1 CD containing MPLAB IDE software and product documentation.	Now

Development Tools from Microchip		
Part Number	**Development Tool**	**Description**
SW007002	MPLAB® IDE – includes: MPASM™ Assembler, MPLINK™ Linker/MPLIB™ Librarian and MPLAB Simulator Software	Integrated Development Environment (download free of charge at www.microchip.com)
SW006011	MPLAB C Compiler for PIC18 MCUs	C Compiler for PIC18CXXX MCUs
SW006012	MPLAB C Compiler for PIC24 MCUs and dsPIC® DSCs	C Compiler for dsPIC30F MCUs
SW006015	MPLAB C Compiler for PIC32 MCUs	C Compiler for PIC32 MCUs
DV164120	PICkit™ 2 Starter Kit	Starter Kit
DV007004	MPLAB PM3 Universal Device Programmer	Full-featured Modular Device Programmer
DM240001	Explorer 16 Development Board	Modular Development System for 16-bit MCUs
DV244005	MPLAB REAL ICE™ Probe Kit	High-speed Emulator for Flash DSC and MCU devices
DM320001	PIC32 Starter Kit	Starter Kit for High Performance PIC32 MCU family
DM240011	MPLAB Starter Kit for PIC24F	Starter Kit for PIC24F MCU family
DM330011	MPLAB Starter Kit for dsPIC DSC	Starter Kit for dsPIC DSC devices

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www.microchip.com/developmenttools

Visit our web site for additional product information and to locate your local sales office.

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

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