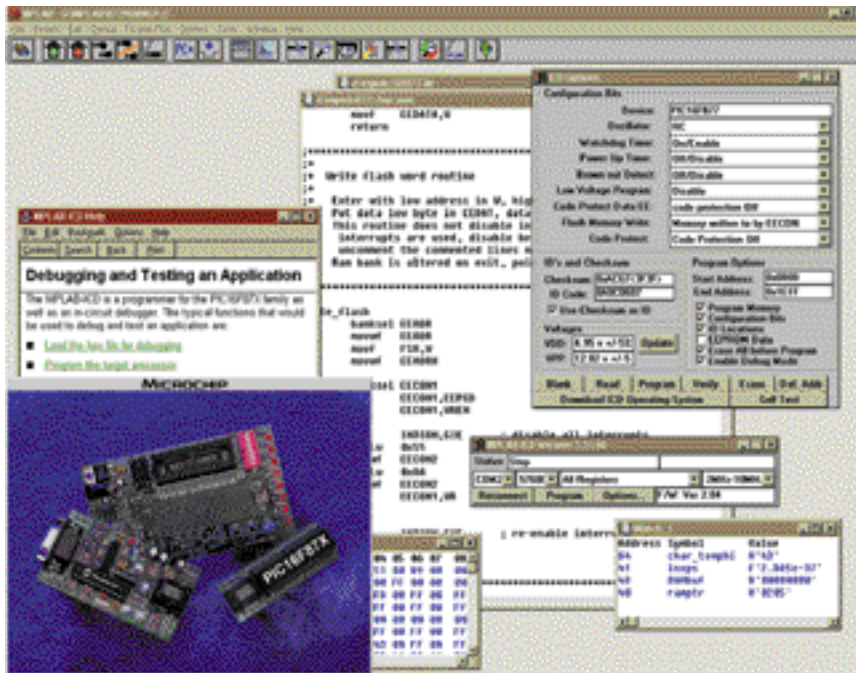


MPLAB® ICD

In-Circuit Debugger Evaluation Kit



Develop your next FLASH PICmicro® MCU project with MPLAB ICD, a powerful and affordable development and evaluation kit!

Microchip's In-Circuit Debugger, MPLAB ICD, is a powerful, low-cost development and evaluation kit for the FLASH PIC16F87X microcontroller (MCU) family. MPLAB ICD utilizes the In-Circuit Debugging capability of the PIC16F87X. This feature, along with Microchip's In-Circuit Serial Programming™ (ICSP™) protocol, offers cost-effective in-circuit FLASH programming and debugging from the graphical user interface of the MPLAB Integrated Development Environment (IDE). A designer can develop and debug source code by watching variables, setting break points, and single-stepping. Running at full speed enables testing hardware in real-time.

The modular design of the In-Circuit Debugger consists of three basic components: ICD module, ICD header, and ICD demo board. The ICD module connects to a serial (COM) port of a PC. When instructed by MPLAB IDE, the ICD module programs and issues debug commands to the target PIC16F87X using ICSP protocol. A 9-inch, 6 conductor cable connects the ICD module to the ICD header. The header contains a target PIC16F877, a modular jack, and 28-pin and 40-pin male DIP headers. The 28-pin and 40-pin DIP headers can be plugged into a target circuit board or into the ICD demo board. A modular jack can be designed into at a target circuit board to support direct connection to the ICD module or, alternatively, a DIP socket on a target application can support direct connection to the ICD header. If a target application is not available, immediate prototype development using the MPLAB ICD is feasible with the included ICD demo board. This board offers LEDs, DIP switches, an analog potentiometer, and prototyping area.

The MPLAB ICD complete hardware development system along with the free MPLAB IDE software provides a powerful, affordable run-time development tool.

Features:

- PIC16F87X evaluation board
- Demonstration board
- PIC16F87X device programming
- In-circuit real-time debugging
- Real-time code execution
- One hardware break point
- Single step
- Watch variables
- 3.0V to 5.5V operating
- 32 kHz to 20 MHz operation
- PC communication at speeds up to 57600 baud
- Includes Microchip's MPLAB IDE:
 - Editor
 - Assembler
 - Linker
 - Simulator
 - Project Manager
 - Source level symbolic debug

Devices Supported:

PIC16F870	PIC16F874
PIC16F871	PIC16F876
PIC16F872	PIC16F877
PIC16F873	

Contact Microchip Technology's Web site at www.microchip.com for information on how to use the MPLAB ICD with*:

PIC16C62	PIC16C72
PIC16C63	PIC16C73
PIC16C64	PIC16C74
PIC16C65	PIC16C76
PIC16C66	PIC16C77

*See Technical Bulletin TB033



MICROCHIP
The Embedded Control Solutions Company

MPLAB® ICD In-Circuit Debugger Evaluation Kit

Ordering Information:

Model Name:

MPLAB ICD Evaluation Kit

Ordering Part Number:

DV164001 ICD Evaluation Kit

DV164002 ICD Module
(ICD Demo & Header board not included)

DV164003 Deluxe ICD Evaluation Kit
(DV164001 w/universal power supply)

Host System Requirements:

PC with Pentium® processor or greater
Microsoft® Windows® operating system

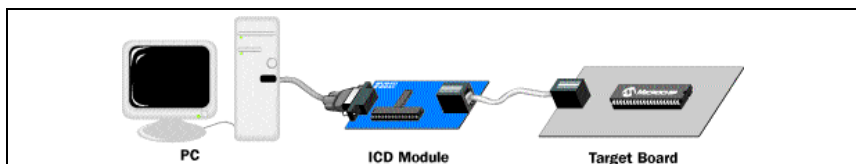
(1) Serial COM port

9V, 0.75A power supply

(PICSTART® Plus or equivalent)

Customer Support:

Microchip maintains a worldwide network of distributors, representatives, local sales offices, Field Application Engineers, and Corporate Application Engineers. Microchip's Internet home page can be reached at: www.microchip.com



System Description:

The low-cost PC-based MPLAB ICD comes with the ICD module; ICD header; ICD demo board; RS-232 cable; 40-pin DIP and 28-pin SDIP connection sockets; one 9-inch, 6-conductor modular cable; MPLAB IDE software; and complete documentation. MPLAB ICD requires the user to provide a power supply for operation. (A PICSTART Plus or equivalent 9V, 0.75A power supply is required.)

The MPLAB ICD module connects to the serial port of the host PC via the RS-232 cable. The 9-inch modular cable connects the MPLAB ICD module to the MPLAB ICD header. The MPLAB ICD header plugs into the connection socket located on the demo board or a target application. A user provided power supply from the demo board or target application, powers the MPLAB ICD module.

Development Tools from Microchip	
MPLAB®IDE	Integrated Development Environment
MPASM™ Assembler	Universal PICmicro macro-assembler
MPLINK™ Object Linker	Linker
MPLIB™ Object Librarian	Librarian
MPLAB C17	C compiler for PIC17CXXX MCUs
MPLAB C18	C compiler for PIC18CXXX MCUs
C compilers	Sold by third-party vendors (HI-TECH, IAR, CCS)
MPLAB SIM Simulator	Software Simulator
MPLAB ICD	In-circuit Debugger
ICEPIC™ Emulator	Low-cost in-circuit emulator
MPLAB ICE 2000	Full-featured modular in-circuit emulator
PICSTART® Plus Programmer	Entry-level development kit with programmer
PRO MATE® II Device Programmer	Full-featured, modular device programmer
KEELOQ® Evaluation Kit	Encoder/Decoder evaluator
KEELOQ Transponder Evaluation Kit	Transmitter/Transponder evaluator
microID™ Developer's Kit	125 kHz and 13.56 MHz RFID development tools
MCP2510 CAN Developer's Kit	MCP2510 CAN evaluation/development tool
MXDEV™ 1 Analog Evaluation System	Evaluation kit for MCP devices

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