PICkit™ 2 Debug Express

Summary

PICkit™ 2 Debug Express allows in-circuit debugging on selected PIC® microcontrollers. In-circuit debugging allows the designer to run, halt and single step the program while the PIC microcontroller is embedded in the hardware. Once halted, the file registers may be examined and modified. This greatly assists the designer in debugging the firmware and hardware together.

The PICkit 2 Debug Express is a low-cost development kit with an easy to use interface for debug as well as programming. It comes complete with a development board that contains Microchip's 44-pin PIC16F887 Flash microcontroller. This starter kit is designed to help developers get up to speed quickly using PIC® microcontrollers and provides everything needed to program, evaluate and develop applications. Instructions are provided in a series of twelve lessons that cover I/O, Interrupts, A/D Converters, Data Tables and Timers with an additional lesson covering debugging features. All source code files for the lessons are furnished.

Microchip's powerful MPLAB® Integrated Development Environment (IDE) is a seamless, integrated software development environment that includes a MPASM™ macro assembler, MPLAB SIM software simulator with symbolic debugger, color-coded source editor, project manager with high-level language debugging and concurrent support for development tools, including low-cost in-circuit debuggers, full-featured real-time emulators and programmers. The consistent and easy-to-use graphic user interface of the MPLAB desktop allows for rapid switching between development, debugging and programming modes within a project.

PICkit 2 Debug Express offers basic MPLAB ICD 2 style debugging integrated with MPLAB IDE and offers the following functions:

- Programming
- Reset
- Run
- Halt
- Single Step
- Animate
- Single breakpoint
- Examine/Change File Registers

Features

PICkit 2 Debug Express (DV164121) bundles the PICkit 2 Device Programmer with a 44-pin demo board. The board includes a PIC16F887 TQFP pre-soldered device and a generous surface mount prototyping area. Tutorials in the User's Guide demonstrate the debugging features implemented.

Users that already have a PICkit 2 Device Programmer (PG164120) may wish to purchase only the new 44-pin demo board (DM164120-2) for evaluation.

- 44-pin Demo Board with PIC16F887 Mid-Range PIC microcontroller
- Easy to use Windows® programming of select Flash based PIC microcontrollers
- Twelve sequential lessons written in Assembly demonstrate how to use Microchip's 20-pin Flash family of microcontrollers.
- Lesson included for the Debug Features (PIC16F887)
- Technical documentation CD including:
  - PICkit 2 User's Guide
  - 44-Pin Demo Board User's Guide
  - Tips 'n Tricks Booklets
  - Selected Application Notes
- FREE! Microchip's MPLAB IDE software for a complete code development environment
- FREE! HI-TECH PICC™ LITE C Compiler (contained on the MPLAB CD)
- FREE! CCS PCM Mid-Range C Compiler demo version

PICkit 2 Debug Express Contents:

- PICkit 2 Device Programmer
- 44-pin Demo Board with PIC16F887 MCU
- PICkit CD ROM
- MPLAB IDE (Integrated Development Environment) CD ROM
- USB Mini Interface Cable

Host System Requirements:

- PC-compatible system with an Intel Pentium® class or higher processor, or equivalent
- CD-ROM drive
- Available USB port
- Microsoft Windows® 98 SE, Windows 2000 or Windows XP
- MPLAB IDE version 7.51 or later

Ordering Information:

Part Number	Description
DV164121	PICkit 2 Debug Express
PG164120	PICkit 2 Development Programmer Only
DM164120-2	44-pin Demo Board Set

Development Tools from Microchip

Part Number	Development Tool	Description
SW007002	MPLAB® IDE – includes: MPASM™ Assembler, MPLINK™ Linker/MPLIB™ Librarian and MPLAB SIM Software Simulator	Integrated Development Environment (download free of charge at www.microchip.com)
SW006011	MPLAB C18 C Compiler	C Compiler for PIC18CXXX MCUs
SW006012	MPLAB C30 C Compiler	C Compiler for dsPIC30F MCUs
DV164101	PICkit™ 1 Flash Starter Kit	Flash Starter Kit
DV164120	PICkit 2 Starter Kit	Starter Kit
DV164005	MPLAB ICD 2	In-Circuit Debugger
ICE2000	MPLAB ICE 2000 Modular In-Circuit Emulator	Full-featured Modular In-Circuit Emulator for PIC12, PIC16 and PIC18 MCUs
ICE4000	MPLAB ICE 4000 Modular In-Circuit Emulator	Full-featured Modular In-Circuit Emulator for PIC18 MCUs and dsPIC® DSCs
DV003001	PICSTART® Plus Programmer	Entry-level Development Kit with Programmer
DV007004	MPLAB PM3 Universal Device Programmer	Full-featured Modular Device Programmer
DM303006	KEELOQ® Security ICs Evaluation Kit II	Encoder/Decoder Evaluator
DV103003	microID® Developer's Kit	13.56 MHz Anticollision microID Developer's Kit for MCRF355 and MCRF360

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