PIC18F Development Tools

Get Your Design Started Quickly with PIC18F Development Tools

FEATURED SOFTWARE TOOLS:

MPLAB® C18 (SW006011)

The MPLAB C18 compiler is a full-featured ANSI-compliant C compiler for the PIC18 family of 8-bit MCUs. MPLAB C18 is a fully integrated component of Microchip's MPLAB Integrated Development Environment (IDE), allowing source level debugging with the MPLAB ICD 2 in-circuit debugger, MPLAB REAL ICE™ emulator and MPLAB SIM simulator. A FREE 60-day demo of the MPLAB C18 compiler is available at: www.microchip.com/C18.

MPLAB® Visual Device Initializer (VDI)

MPLAB VDI graphically configures the microprocessor and peripherals, and when complete, generates code usable in assembly language or C programs. MPLAB VDI does extensive error checking on assignments and settings, and generates and error message if there are conflicts on any resources. Download VDI with MBLAB IDE at: www.microchip.com/MPLAB.

Application Maestro™ Software

A stand-alone module tool used to configure and incorporate a range of pre-written firmware modules into PIC® microcontroller applications. Using a graphic interface, select one or more modules, then configure the parameters listed. The Application Maestro software generates code that can be incorporated into the application project, using MPLAB IDE or any compatible development environment. Download at: www.microchip.com/applicationmaestro.

FEATURED DEMONSTRATION BOARDS:

High-Pin Count PIC18 Microcontrollers (www.microchip.com/PIC18)

PICDEM™ HPC Explorer (DM183022)

This low-cost demo board is used to evaluate the performance of High Pin Count (HPC) 8-bit PIC18F series microcontrollers. The board features a PIC18F8722, which is the superset of the entire 64 and 80-pin PIC18F general purpose family. A daughter board (mezzanine) is also part of the kit and allows different processors sharing the same pin-out to be mounted and tested on the Explorer board.

PIC18 J-series Plug-in Modules (MA180011-16)

The HPC Explorer Board can also be used to evaluate the PIC18 J-series 3V devices with the use of Plug-in Modules (PIMs).

PICkit™ 2 PIC18J Demo Board (DM164120-5)

This ultra low-cost small demo board features the PIC18F87J10 device. This board is used with the PICkit™ 2 Programmer (PG164120).

Low-Pin Count PIC18 Microcontrollers (www.microchip.com/PIC18)

PICDEM™ 2 Plus (DM163022)

The PICDEM 2 Plus demonstrates the capabilities of the 18, 28 and 40-pin PIC18 and PIC16 devices. It can be used stand-alone with a programmed part and with MPLAB REAL ICE or MPLAB ICD 2. The board has a prototyping area, LCD display, piezo sounder driven by PWM signal, RS-232, temperature sensor, 4 LEDs and 2 push button switches.

USB Interface (www.microchip.com/USB)

PICDEM™ Full-Speed USB Demo Board (DM163025)

The FS-USB evaluation board features the PIC18F4550 device with full-speed USB 2.0 operation (12 Mbit/s). The demo board comes pre-loaded with a USB bootloader and includes a 20 MHz crystal, serial port, voltage regulation with the ability to switch from external power supply to USB bus supply, expansion connector, compatible with the PICtail™ daughter boards standard, temperature sensor, potentiometer, 2 LEDs for status display and 2 input switches.

PIC18F87J50 FS USB Plug-in Module (MA180021)

A simple USB Plug-in Module can be used to evaluate the PIC18F87J50 family with the HPC Explorer Board. This PIM includes a full-speed USB interface and automatically adjusts the voltage to accommodate this 3V device.

ZigBee™ and MiWi™ Wireless Networking Protocols (www.microchip.com/ZigBee)

PICDEM™ Z Demonstration Board (DM163027-4)

The PICDEM Z demo board is an easy-to-use ZigBee wireless communication protocol development and demonstration platform. The kit includes the ZigBee protocol stack and two PICDEM Z boards, each with an RF daughter card, and features Microchip's MRF24J40 2.4 GHz IEEE 802.15.4 transceiver and PIC18 high-performance microcontroller. Both a ZigBee software stack and a smaller MiWi protocol stack are available from Microchip under a no-cost license agreement.

ZENA™ Wireless Network Analyzer Tool (DM183023)

Microchip's ZENA wireless network analyzer uses a simple graphical interface to configure the free Microchip ZigBee and MiWi protocol stacks. Consisting of both hardware and software, the ZENA wireless network analyzer is an IEEE 802.15.4 protocol analyzer that is capable of decoding ZigBee and MiWi protocol packets.

MICROCHIP

Microchip Technology Incorporated

LCD Segmented Display (www.microchip.com/LCD)

PICDEM™ LCD 2 Demonstration Board (DM163030)

The PICDEM LCD 2 board demonstrates the features of the LCD Flash 28, 40, 64 and 80-pin PIC microcontrollers. The board is populated with the PIC18F85J90 MCU and other devices are supported via a separate pack of Plug-in Modules (MA160011). A sample 3V LCD glass display is included for custom prototyping and can demonstrate the PIC18F85J90 boost and contrast capability. The board ships with demo code and can operate with a lithium coin cell.

Ethernet Technology (www.microchip.com/Ethernet)

PICDEM.net™ 2 Development Board (DM163024)

The PICDEM.net 2 Board is an Ethernet development board supporting both the popular ENC28J60 Ethernet Controller and the single-chip Ethernet microcontroller family, the PIC18F97J60. Using Microchip's free TCP/IP stack and this board, a web server can be developed showcasing the capability to remote monitor and control embedded applications over the Internet. Features include 2 x RJ-45 Ethernet connectors, PICtail™ connector, LCD display, ICSP™/MPLAB ICD 2 interface, programmable buttons/LEDs, temperature sensor, RS-232/RS-485 interface and a real time clock.

CAN Technology (www.microchip.com/CAN)

PICDEM™ CAN-LIN 2, 3 (DM163011, DM163015)

Microchip offers two similar PICDEM CAN-LIN Demo boards to support different PIC microcontrollers. All demonstrate the main features of the devices, especially those features of the integrated CAN module. The board also employs a LIN subnetwork using Microchip's PIC16C43X and PIC18F320 devices families.

Motor Control (www.microchip.com/MC)

PICDEM™ MC Demonstration Board (DM183011)

The PICDEM MC Demo Board includes everything needed to evaluate the high-performance PIC18FXX31 MCUs for motor control design. The board supports motors up to 800 watts, with complete isolation between power and control circuits. This enables connection to debuggers and emulators when high power is connected. The development board comes with pre-programmed PIC18F2431 and PIC18F4431 devices.

PICDEM™ MC Low Voltage (DM183021)

This board offers a cost-effective method of evaluating and developing sensored or sensorless brushless DC (BLDC) motor control applications. The board supports 28-pin, PIC18 microcontrollers and is capable of controlling motors rated up to 48V and 2.2 amps. Pre-programmed PIC18F2431 and dsPIC30F3010 devices are included.

nanoWatt Technology (www.microchip.com/LowPower)

Low Power Demonstration Board (DM163026)

This board uses the PIC18F4620 for demonstrating nanoWatt features and implementing system power reduction techniques. Included on the board are a fully functional ultrasonic range finder with LCD display, a DC boost circuit, USART, test points to measure system and PIC power consumption, three switches, 2 LEDs and a Microchip TC1047A temperature sensor. Three self-paced, step-by-step lab exercises are included on CD-ROM.

FEATURED DEBUGGERS & PROGRAMMERS:

MPLAB® ICD 2 In-Circuit Debugger (DV164005)
A low-cost real-time debugger and programmer that works with all of the PIC18 Flash microcontrollers.

MPLAB® PM3 Programmer (DV007004)
This sophisticated universal programmer supports all PIC18F devices.

PICkit™ 2 Development Programmer (PG164120)
An small, easy-to-use starter kit that enables users to start writing code and programming with PIC microcontrollers. The programmer interfaces to PICkit demo boards including PIC18 J-series and K-series devices.

MPLAB® REAL ICE™ (DV244005)
Microchip's latest high speed In-Circuit Emulator system for debugging and programming Microchip Flash microcontroller devices.

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www.microchip.com/developmenttools

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