

MPLAB PM3 UNIVERSAL DEVICE PROGRAMMER



Features

- RS-232 or USB Interface
- ICSP™ Integrated Circuit Serial Programming

- 3 Operating Modes (PC Host Mode, Safe Mode, Standalone Mode)

The **MPLAB® PM3** programs Microchip's entire line of PICmicro® MCU devices as well as the latest dsPIC30F DSC devices. The programmer has exceptional programming speed to allow high volume production, and includes a Secure Digital /Multimedia Card slot for easy and secure data storage and transfer. Programmer includes 40 socket pins, allowing each socket module to be configured to support many devices. The socket module adapter (AC164350) allows current PROMATE® II socket modules to be used with the **MPLAB® PM3** programmer.

| Mfg. Part No. | Stock No. | Price Each |
|---------------------------|-----------|------------|
| PICmicro, dsPIC30F | | 1+ |
| DV007004 | 88H6738 | 1072.92 |

PIM_78734

MSP430 GANG PROGRAMMER



Features

- 3x Faster than the previous MSP-GANG430 GANG programmer
- Quickly and reliably program Flash or FRAM-based MSP devices
- Both RS-232 and USB interface
- Several programming modes

- Intuitive GUI for configuring, programming and testing production setup
- SD Card slot for storing images
- LCD screen for easy programming without a PC
- Supports up to 8 targets simultaneously
- Supports all current and future MSP430 devices

The MSP-GANG is a production programmer for MSP430 device that can program up to eight identical MSP430 flash or FRAM devices at the same time. The MSP Gang Programmer connects to a host PC using a standard RS232 or USB connection and provides flexible programming options that allow the user to fully customize the process. The MSP Gang programmer is provided with an expansion board, called the Gang splitter, that implements the interconnections between the MSP Gang programmer and multiple target devices. Eight cables are provided that connect the expansion board to eight target devices (via JTAG or Spy bi wire connectors). The programming can be done with a PC or as a standalone device. A PC side graphical user interface is also available and is DLL based.

| Mfg. Part No. | Stock No. | Price Each |
|---------------|-----------|------------|
| MSP430 | | 1+ |
| MSP-GANG | 64T3682 | --- |

PIM_100982

PICKIT 3 IN-CIRCUIT DEBUGGER ONLY



- PICKit 3 allows debugging and programming of PIC and dsPIC Flash MCU's
- Expensive sockets or adapters are not required
- Minimum of additional hardware needed for debug

- Built in over voltage/short circuit monitor
- Supports low voltage up to 2volts
- Compatible with MPLAB ICD 2, MPLAB ICD 3 and MPLAB REAL ICE

The PG164130 is a PICKit 3 in circuit debugger/programmer uses in circuit debugging logic incorporated into each chip with Flash memory to provide a low cost hardware debugger and programmer. The MPLAB PICKit 3 allows debugging and programming of PIC and dsPIC flash microcontrollers using the powerful graphical user interface of the MPLAB integrated development environment (IDE).

| Mfg. Part No. | Stock No. | Price Each |
|---|-----------|------------|
| In-Circuit Debugger / Programmer | | 1+ |
| PG164130 | 25R8311 | --- |

PIM_176998

SOCKET MODULES



Socket modules enable Microchip programmers, emulators and debuggers to handle multiple package types. These socket modules can be ordered as accessories.

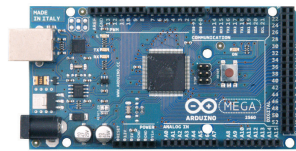
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SOCKET MODULES (CONT.)

| Mfg. Part No. | Description | Stock No. | Price Each |
|---------------|--|-----------|------------|
| ● AC164350 | ADAPTER, PROMATE II TO MPLAB PM3 | 88H5617 | 129.99 |
| ● AC164322 | SOCKET MODULE | 30K7439 | 359.16 |
| AC164342 | SOCKET MODULE, 121 BGA, FOR MPLAB PM3 | 24R5578 | 240.97 |
| AC164341 | SOCKET MODULE, 16 QFN, FOR MPLAB PM3 | 45P4595 | 189.99 |
| AC164302 | SOCKET MODULE, 16 SOIC, 28 SOIC, FOR MPLAB PM3 | 88H5604 | 224.90 |
| ● AC164301 | SOCKET MODULE, 18 DIP, 28 DIP, FOR MPLAB PM3 | 29M7850 | 218.02 |
| AC164306 | SOCKET MODULE, 20 TSSOP, FOR MPLAB PM3 | 88H5608 | 218.02 |
| ● AC164307 | SOCKET MODULE, 28 SSOP, FOR MPLAB PM3 | 30M9521 | --- |
| AC164311 | SOCKET MODULE, 44 MQFP, FOR MPLAB PM3 | 88H5613 | 189.99 |
| ● AC164305 | SOCKET MODULE, 44 TQFP, FOR MPLAB PM3 | 30M9520 | 218.02 |
| AC164343 | SOCKET MODULE, 64 QFN, FOR MPLAB PM3 | 14R8660 | 199.99 |
| AC164308 | SOCKET MODULE, 68 PLCC, FOR MPLAB PM3 | 88H5610 | 229.49 |
| AC164340 | SOCKET MODULE, 8 DFN, 20 QFN, FOR MPLAB PM3 | 45P4594 | 189.99 |
| AC164334 | SOCKET MODULE, 8 DFN, FOR MPLAB PM3 | 25R6827 | 218.02 |
| ● AC164309 | SOCKET MODULE, PIC, DSPIC, PLCC44, FOR MPLAB PM3 | 04M5437 | 218.02 |

PIM_63675

ARDUINO MCU DEVELOPMENT PLATFORM



Arduino is an open-source electronics prototyping platform based on flexible, easy-to-use hardware and software. Boards come with different controllers and features. Additional functionalities can be added with pre-made shields (daughter cards) or a designer can make custom shields with the available prototyping shields.

Arduino Due is a microcontroller board based on the Atmel SAM3X8E ARM Cortex-M3 CPU. It has 54 digital input/output pins (of which 12 can be used as PWM outputs), 12 analog inputs, 4 UARTs, a 84 MHz clock, an USB OTG capable connection, 2 DAC, 2 TWI, a power jack, an SPI header, a JTAG header, a reset button and an erase button.

Arduino Esplora is a microcontroller board derived from the Arduino Leonardo. The Esplora differs from all preceding Arduino boards in that it provides a number of built-in, ready-to-use set of onboard sensors for interaction.

Arduino Leonardo is a microcontroller board based on the ATmega32u4. It has 20 digital input/output pins (of which 7 can be used as PWM outputs and 12 as analog inputs), a 16 MHz crystal oscillator, a micro USB connection, a power jack, an ICSP header, and a reset button.

Arduino Mega 2560 is a microcontroller board based on the ATmega2560. It has 54 digital input/output pins (of which 15 can be used as PWM outputs), 16 analog inputs, 4 UARTs, a 16 MHz crystal oscillator, a USB connection, a power jack, an ICSP header, and a reset button.

Arduino MEGA ADK is a microcontroller board based on the ATmega2560. It has a USB host interface to connect with Android based phones. It has 54 digital input/output pins (of which 15 can be used as PWM outputs), 16 analog inputs, 4 UARTs, a 16 MHz crystal oscillator, a USB connection, a power jack, an ICSP header, and a reset button.

Arduino Micro is the smallest board of the family, easy to integrate it in everyday objects to make them interactive. The Micro is based on the ATmega32u4 microcontroller featuring a built-in USB which makes the Micro recognisable as a mouse or keyboard.

Arduino Uno is a microcontroller board based on the ATmega328P (datasheet). It has 14 digital input/output pins (of which 6 can be used as PWM outputs), 6 analog inputs, a 16 MHz quartz crystal, a USB connection, a power jack, an ICSP header and a reset button.

Arduino Uno SMD is a version of the Arduino Uno, but uses an surface mount version of the ATmega328P instead of the through-hole version. It has 14 digital input/output pins (of which 6 can be used as PWM outputs), 6 analog inputs, a 16 MHz crystal oscillator, a USB connection, a power jack, an ICSP header, and a reset button.

Arduino Nano is a small, complete, and breadboard-friendly board based on the ATmega328 (Arduino Nano 3.x). It has more or less the same functionality of the Arduino Duemilanove, but in a different package.

| Mfg. Part No. | Description | Stock No. | Price Each |
|---------------|--|-----------|------------|
| ● A000062 | Arduino Due Board | 47W2961 | 33.54 |
| ● A000095 | Arduino Esplora Board | 63W3549 | --- |
| ● A000052 | Arduino Leonardo Board with Headers | 07W3935 | 19.90 |
| ● A000057 | Arduino Leonardo Board without Headers | 07W3936 | --- |
| ● A000067 | Arduino Mega 2560 REV3 Board | 45W6205 | 47.26 |
| ● A000053 | Arduino Micro Board with Headers | 63W3544 | 20.64 |
| ● A000093 | Arduino Micro Board without Headers | 63W3548 | 19.48 |
| ● A000066 | Arduino Uno Board | 78T1601 | 21.07 |
| ● K000007 | Arduino Uno Development Kit | 47W2965 | 84.95 |
| ● A000073 | Arduino Uno SMD R3 Board | 63W3545 | 20.64 |
| A000010 | Arduino Uno Workshop Kit | 13T9277 | --- |
| A000005 | Audiono Nano Board | 13T9275 | 18.58 |

PIM_194890