MICROCHIP TECHNOLOGY EXPANDS POWERFUL PIC18 ARCHITECTURE PORTFOLIO WITH 8-PIN FLASH DEVICES

The PIC18F010 and PIC18F020 Flash microcontrollers pack industry-leading performance of 10 MIPS, 4K bytes of Flash program memory, 256 bytes of user RAM and 64 bytes of EEPROM data memory into a small 8-pin package. Implemented on Microchip's new 0.5 micron process technology, the devices expand Microchip's broad portfolio of Flash and powerful PIC18 architecture devices.

FLEXIBILITY GETS RESULTS

The PIC18F010 and PIC18F020 devices complement the more than 140 existing PICmicro® microcontrollers and provide a broad portfolio of memory and peripheral options to meet almost any design requirement.

Both devices are pin and code compatible with existing 8-pin PICmicro microcontrollers. Pin compatibility decreases prototype time and saves money since existing PC boards can be reused with new features. The code compatibility across all 8- to 84-pins of the PICmicro architecture saves development time and money since software can be reused across several platforms.

The increased performance of the RISC architecture can accommodate additional software features and also improve timing accuracy for quick customization. Modular development tools provide exact emulation of complex systems, leading to reduced development and validation time and lower tool costs.

PIC18F010 & PIC18F020 FEATURES

Featuring low voltage operation with programmable low voltage detect (PLVD), as well as EEPROM

write capability down to 2 volts, the PIC18F010 and PIC18F020 devices are well suited for battery applications. A programmable internal oscillator provides designers with the ability to select different frequencies ranging from 32kHz to 8MHz, matching current consumption and performance for specific applications. The flexibility of the PIC18 core architecture combined with the Flash memory offer the advantages of in-circuit programming and upgrading. The devices feature a programmable brown-out detector, 8x8 multiply, 31 hardware stack levels and a 16-bit timer/counter.

DEVELOPMENT TOOLS

Microchip's MPLAB® In Circuit Debugger (ICD) supports the PIC18F010 and PIC18F020 with a complete hardware development system, including a

demo board. The ICD tool provides a powerful, affordable run-time development tool and starts as low as $99. Microchip's MPLAB-IDE editor, assembler, linker, simulator, project manager and source level symbolic debug are also included.

Typically used to replace existing discrete components, the PIC18F010/020 devices are ideal for converting outdated mechanically designed objects (i.e., timers and switches) to smarter electronic devices.

Embedded applications for the PIC18F010/020 devices are varied and include applications where space is limited or when a small microcontroller is needed to serve a support function as in the role of a smart supervisory circuit or watchdog timer for high-end controllers.
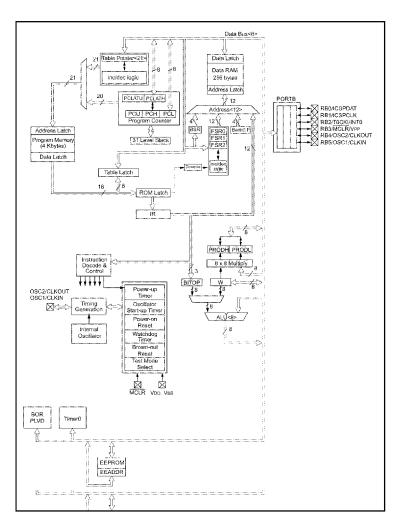
Examples of applications include temperature control units in heated pizza delivery bags, washing machine pressure sensors, DC motor control in cooling fans, low-battery detection alarms, building temperature controllers or after-market motorcycle brake light flashers.

The PIC18 architecture is an enhanced RISC core that is upward compatible from Microchip's Mid-Range PIC12C6XX and PIC16CXXX core and High-End PIC17CXXX core, providing a seamless migration path of software code to higher integration. Available in Flash and one-time programmable (OTP) versions, the PIC18 enhanced architecture offers up to two million bytes of program memory address space, a C compiler friendly development environment and industry-leading 10 MIPS performance at 40 MHz.

PRICING

Pricing in 10,000-unit quantities is $1.59 each for the PIC18F010 and $1.76 for the PIC18F020.

Engineering samples are targeted for September 2001 with release to production slated for October 2001. For more information, contact any authorized Microchip distributor around the world.

**PIC18F010 and PIC18F020
Block Diagram**

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The data sheet for the PIC18F010 and PIC18F020 can be found at:
http://www.microchip.com/18f0XX

For more information, contact
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http://www.microchip.com.