HIGH-PERFORMANCE 8-BIT RISC MICROCONTROLLERS
TARGET SOC, SYSTEM PARTITIONING APPLICATIONS

First Four PIC18CXXX Devices Debut for Complete Design Reusability

CHANDLER, Ariz., July 6, 1999 [NASDAQ: MCHP] — Microchip Technology Inc. today introduced the first four devices of its new PIC18CXXX 8-bit RISC microcontroller architecture: the PIC18C242, PIC18C442, PIC18C252 and PIC18C452. With the enhanced performance of the new PIC18CXXX architecture, these one-time-programmable (OTP) devices provide an ideal solution for system-on-a-chip (SOC) and system partitioning capability in embedded applications.

The new PIC18CXXX 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. The PIC18CXXX 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. Microchip will continue to support its current PICmicro architecture along with the new PIC18CXXX architecture.

The PIC18C242 and PIC18C442 feature 8,192 x 16 bits of OTP program memory and 512 bytes of user RAM. The PIC18C252 and PIC18C452 offer 16,384 x 16 bits of OTP program memory and 1,536 bytes of user RAM. The PIC18C242 and PIC18C252 are available in 28-pin PDIP and SOIC packages, and the PIC18C442 and PIC18C452 are available in 40- and 44-pin PDIP, PLCC and TQFP packages.

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ADD ONE – FOUR PIC18CXXX MCUs DEBUT

All four devices contain high precision analog peripherals, including 5- to 8-channel 10-bit (+/- 1 LSB) analog-to-digital converters, programmable low-voltage reset and programmable brownout detect. The microcontrollers feature 23-34 I/O pins, high-performance communication capability through USART/I2C™/SPI™, two 10-bit pulse-width modulation, three 16-bit timers, one 8-bit timer, watchdog timer, wide 2.5-5.5 operating voltage, capture/compare/pulse-width modulation and Phase Lock Loop.

The PIC18CXXX enables system partitioning and low-cost system-on-a-chip (SOC) capability in embedded systems designs. Leading engineers are carefully partitioning the embedded hardware into digital logic that can take advantage of high integration and flexible non-volatile memory-based software to meet demands for user interfaces which can change rapidly. The PIC18CXXX provides designers with a single-chip system solution that complements the digital logic by merging the flexibility of OTP memory with advanced analog functionality at a competitive 8-bit microcontroller price. This optimizes the performance of a 32-bit microprocessor, digital signal processor or SOC.

Applications for these devices are wide ranging and may include anti-lock braking systems, vehicle active suspension, fuel pump controller, fuel injection, manufacturing equipment, instrumentation and monitoring, data acquisition, power conditioning, thermostats, environmental monitoring, telecommunications and consumer audio/video.

Microchip’s PICmicro OTP and Flash microcontrollers feature In-Circuit Serial Programming™ (ICSP™), which allows the microcontroller to be programmed after being placed in a circuit board. This offers tremendous flexibility, reduces development time and manufacturing cycles, and improves time to market. ICSP also enables reduced cost of field upgrades, system calibration during manufacturing, the addition of unique identification codes to the system and calibration of the system in the field. Requiring only two I/O pins for most devices, Microchip offers the most non-intrusive programming available today.

- MORE -
ADD TWO – FOUR PIC18CXXX MCUs DEBUT

PIC18CXXX Development Systems

The PIC18CXXX is supported by the MPLAB™-C18 C Compiler, a complete high-level language compiler for the new PIC18CXXX 8-bit RISC microcontroller architecture. The compiler is expected to be available August 1999 for $495 each. A 30-day full-featured demo of MPLAB-C18 can be downloaded from Microchip’s web site www.microchip.com at no cost starting in July.

The MPLAB-ICE 2000 Universal In-Circuit Emulator provides high-performance real-time emulation for the PIC18CXXX. The system features the sophisticated MPLAB Integrated Development Environment. Interchangeable processor modules and device adapters allow the emulator system to be easily configured to emulate different processors. MPLAB-ICE 2000 emulates voltages as low as 2.0 volts and can emulate at full speed. Operating in the Microsoft Windows® environment, MPLAB gives users the flexibility to edit, compile and emulate all from a single user interface—at no additional cost. Pricing for MPLAB-ICE 2000 starts at $1,995. Microchip offers additional support, including development and programming tools.

Pricing and Availability

Pricing in 10,000-unit quantities is $6.16 each for the PIC18C242, $6.79 each for the PIC18C442, $6.70 each for the PIC18C252 and $7.41 each for the PIC18C452-04/P. These four devices are being implemented with industry standard industrial temperatures. Samples are planned for August 1999 with volume shipments expected third quarter 1999. For more information, contact any Microchip sales representative or authorized worldwide distributor.

Microchip Technology Inc. manufactures the PICmicro® family of 8-bit RISC-based microcontrollers—with OTP, Flash, and ROM memory technologies; serial EEPROMs and related specialty memory products; microID™ family of RFID products and KEEL0Q® code hopping devices. These products target thousands of embedded control applications in the consumer, automotive, office automation, communications and industrial markets. Microchip’s quality systems are ISO 9001 certified. Headquartered near Phoenix in Chandler, Ariz., Microchip employs approximately 1,865 people worldwide and has sales offices throughout Asia, Europe, Japan and the Americas.

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