

**FOR IMMEDIATE RELEASE**

**FOR MORE INFORMATION, CONTACT:**

Bill Knauss (Development Systems Marketing Manager).....(602) 786-7510  
Eric Sells (Public Relations Manager).....(602) 786-7478  
For Literature, Contact Microchip Technology.....(602) 786-7668

**MICROCHIP TECHNOLOGY OFFERS  
NEW PICMASTER™ UNIVERSAL DEVELOPMENT SYSTEM  
FOR PIC17C4X MICROCONTROLLERS**

**CHANDLER, Ariz., Nov. 13, 1995 [NASDAQ: MCHP]** -- Microchip Technology Inc., a leading supplier of field-programmable 8-bit microcontrollers and specialty nonvolatile memory products for embedded control applications, today introduced its new high-performance PICMASTER™-17B Universal In-Circuit Emulator System. This sophisticated development system provides real-time in-circuit emulation capabilities for Microchip's popular PIC17C4X (high-performance) microcontroller family.

Operating on IBM®-compatible PCs under the Microsoft Windows® user-friendly environment, the PICMASTER-17B system includes: an emulator control pod, target-specific emulator PICPROBE-17B, PRO MATE™ programmer, PC host-interface card, PC host emulation control software, demonstration hardware and software and complete system documentation. In addition, the development tool contains Microchip's new MPLAB™ Integrated Development Environment, a software productivity tool which gives PIC16/17 microcontroller developers the flexibility to edit, compile and emulate all from a single user interface.

- MORE -

**ADD ONE**

## **NEW PICMASTER™-17B UNIVERSAL IN-CIRCUIT EMULATOR**

PICMASTER-17B supports Microchip's popular PIC17C42 and the recently introduced PIC17C43 and PIC17C44 8-bit field-programmable microcontrollers. These two new 40-pin RISC-based devices provide the fastest instruction execution speed of any 8-bit microcontroller in the industry--160 nanoseconds at 25 MHz--and allow unique execution of its two 8 x 8 unsigned hardware multiply instructions in a single instruction cycle. On-chip EPROM program memory is 4 K x 16 for the PIC17C43 and 8 K x 16 for the PIC17C44.

Microchip's 20 MHz PICPROBE-17B provides the interface connection to the target microcontroller device that is being emulated. The PICPROBE-17B configures the emulator system for emulating a target PIC17C4X microcontroller and connects to the ribbon cable coming from the emulator. Interchangeable probes allow development engineers to easily reconfigure the emulator system for emulating different target processors. Current PICMASTER-17 owners can easily upgrade their PICPROBE-17B kit for full PIC17C4X family compatibility by contacting Microchip for a free upgrade kit.

"The fast execution throughput and large program memory of the PIC17C4X family offers a cost-effective alternative to more expensive 16-bit microcontrollers and dedicated digital signal processors for certain math-intensive applications, making this family extremely popular among design engineers," said Bill Knauss, Microchip's development systems marketing manager. "PICMASTER-17B provides engineers with the most comprehensive development system solution available and offers maximum power, flexibility and rapid design turnaround vital in today's competitive end-equipment markets. This development system lays the groundwork for potential sales and design wins for Microchip's microcontroller devices."

PICMASTER-17B offers real-time program memory instruction emulation and in-circuit emulation of Microchip PIC17C4X microcontrollers. The development system allows for multiprocessor emulation for synchronizing up to four emulators from a single PC host when developing target applications that use more than one processor.

- MORE -

**ADD TWO**  
**NEW PICMASTER™-17B UNIVERSAL IN-CIRCUIT EMULATOR**

As a debugging tool, the emulator provides source level display windows for program memory to allow users to view downloaded object code as source code. The emulator also provides windows for trace memory, special function registers, RAM registers and stack memory. The emulator's debugging capabilities lets users run or single step through source code or program memory, halt program memory execution and enable/disable breaks at symbolic labels or at lines in source text. Users can also modify code in any program memory address location, and save modifications to a file for later use.

PICMASTER-17B provides program memory mapping (up to 64K words) into emulation memory. A user-detectable internal emulator clock or user target system clock via a jumper is available on the probe. The real-time trace analyzer includes extra inputs for capturing external events and external outputs are generated for synchronizing to additional test equipment.

The development system features Microchip's PRO MATE, which allows users to program PIC17C4X microcontrollers and offers all the accessories needed to connect to a host system, including interface cables and a universal input power supply unit. Also included are MPASM, a PC-hosted symbolic macro assembler and MPSIM, a discrete event software simulator for PIC17C4X microcontrollers.

Host computer system requirements include a PC/AT-compatible machine with 386 or higher processor; VGA; MS-DOS/PC-DOS version 5.0 or greater; Microsoft Windows version 3.1 or greater, 4 Mbyte RAM and one 3.5" floppy disk drive. Priced at \$3,750 with the PRO MATE programmer and \$3,025 without the programmer, the entire PICMASTER-17B Development System is available for immediate delivery through any authorized Microchip distributor or sales representative around the world. Stand-alone PICPROBE-17B kits are priced at \$425.

- MORE -

**ADD THREE  
NEW PICMASTER™-17B UNIVERSAL IN-CIRCUIT EMULATOR**

Microchip Technology Inc. is a leading supplier of field-programmable 8-bit microcontrollers, complementary ASSPs and related specialty memory products for high-volume embedded control applications in the consumer, automotive, office automation, communications and industrial markets. The company focuses on high volume applications that feature the industry's most economical OTP (one-time-programmable) as well as EEPROM and ROM memory capability. The company is headquartered near Phoenix in Chandler, Ariz., and operates wafer fabrication facilities in Chandler and Tempe, Ariz. Assembly and test operations are performed in Taiwan, Thailand and other locations. Microchip employs approximately 1,600 people worldwide and has sales offices throughout Asia, Europe, Japan and North America.

####

The Microchip name and logo and PIC are registered trademarks of Microchip Technology Inc. PICMASTER, PRO MATE and MPLAB are trademarks of Microchip Technology, Inc. Windows is a trademark of Microsoft Corp. All other trademarks are the property of their respective owners.