May 7, 2007

Microchip Technology Doubles the Flash and RAM of Its LCD PIC18 Microcontrollers, Lowers the Cost

PIC18F85J90 Microcontroller Series Provides Integrated LCD Module, 32 Kbytes Flash and Internal Voltage Controller for Cost-Sensitive Embedded Display Applications

CHANDLER, Ariz.--(BUSINESS WIRE)--

Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller and analog semiconductors, today announced six new members of the 8-bit PIC(R) microcontroller family with an integrated Liquid-Crystal Display (LCD) module. The PIC18F85J90 series doubles the amount of Flash and RAM memory over existing 64- and 80-pin family members for cost-effective human-interface applications requiring embedded control, including thermostats, utility meters and medical instrumentation. This increased amount of memory enables users to add more complex functionality, such as speech playback and larger amounts of self-programming memory allocation, while taking advantage of the cost savings offered by the PIC18 "J" series' 3-volt manufacturing process technology.

The LCD module onboard the PIC18F85J90 series also enables a software-programmable contrast controller. This contrast controller can boost the LCD voltage, dim the display, or compensate for environmental elements like temperature and lighting. These features lower the cost of the LCD glass while improving the display appearance, making advanced LCD functionality affordable to a whole new class of embedded display applications. Other key features include an internal oscillator, improved low-voltage performance and more LCD segments on 64-pin devices, which all help to lower the total system cost.

"Microchip's Flash LCD microcontrollers offer the greatest breadth of LCD segment drivers, package sizes, and integrated features for embedded control applications," said Mitch Obolsky, vice president of the Advanced Microcontroller Architecture Division. "With the PIC18F85J90's high performance, flexible LCD controller and attractive pricing, engineers are now able to add complex functionality, such as speech playback and LCD contrast dimming, to products that previously could not justify the cost."

Example applications for the new PIC18F85J90 microcontroller family with integrated LCD module include: automotive (dashboard displays); instrumentation/measurement (medical instruments/monitors, meter reading, handheld terminal/remote reading); appliance (display/control units on stoves/ovens, microwaves, etc.); industrial (payment systems, water/gas/electric/heat utility meters, gasoline pumps); consumer (programmable thermostats/controls, irrigation control, home security systems, exercise equipment); communications (handset displays).

Additional features include:

-- 8 to 32 Kbytes of self-programming Flash program memory, and up to 2 Kbytes of SRAM

-- Enhanced LCD module with four multiplex commons and up to 48 segments driving up to 192 pixels

-- Seven power-managed states, and a 32 kHz to 8 MHz internal oscillator

-- High core performance of up to 40 MHz at 3V

-- 10-bit analog-to-digital converter with up to 12 signal channels and 100k samples-per-second

-- Two analog comparators, internal voltage reference, brownout detect and low-voltage detect

-- MI2C(TM)/SPI, EUSART (supports LIN) and AUSART communication protocol support

-- Four timers and two Capture/Compare/PWM Modules

Development Tools

To reduce time to market, all six microcontrollers are supported by Microchip's standard, high-performance development systems, including: MPLAB(R) Integrated Development Environment (IDE), MPLAB C18 C Compiler, MPLAB ICD 2 In-Circuit Debugger, and the PICDEM(TM) HPC Explorer Board (part # DM183022). In addition, the PICDEM LCD 2 Demo Board (part # DM163030) is expected to be available in May to ease development with this series' advanced LCD features.

Availability

All six of the PIC18F85J90 LCD microcontrollers are available today for general sampling and volume production, with pricing starting at $2.37 each in 10,000 unit quantities. The PIC18F85J90/84J90/83J90 are available in 80-pin TQFP packages, while the PIC18F65J90/64J90/63J90 are available in 64-pin TQFP packages. For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at www.microchip.com/lcd.

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About Microchip Technology

Microchip Technology Inc. (NASDAQ: MCHP) is a leading provider of microcontroller and analog semiconductors, providing low-risk product development, lower total system cost and faster time to market for thousands of diverse customer applications worldwide. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support along with dependable delivery and quality. For more information, visit the Microchip website at www.microchip.com.

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