

MCUs Feature Numerous Integrated Peripherals



Microchip Technology Inc. today announced it has expanded its 8-bit Enhanced Mid-range Core product portfolio with the new, low-cost PIC16F1516/7/8/9 and PIC16F1526/7 (PIC16F15XX) microcontrollers (MCUs). These new, general-purpose MCUs feature Microchip's eXtreme Low Power (XLP) technology—for sleep currents down to 20 nA, and active currents less than 50 micro Amperes/MHz—which lowers overall power consumption and extends battery life. This MCU family offers 5V operation, which is important for many home-appliance and automotive applications. An on-chip, 10-bit Analog-to-Digital Converter (ADC) with up to 30 channels enables more mTouch™ capacitive touch-sensing keys and sliders in smaller packages. Up to two each of EUSART, I2C™ and SPI ports enable communication with on-board peripherals. The new MCUs are available in 28-, 40-/44- and 64-pin packages, and are suitable for cost-sensitive applications in the consumer (e.g. DVD players, cell phones, MP3 players); automotive (e.g. dashboards, gauges, on-board sensors); home appliance (e.g. washing machines, refrigerators, TV remote controls), and other markets.

In today's competitive environment, it can be challenging to design feature-rich, low-power systems at a low cost. The PIC16F15XX MCUs enable the development of higher-performing designs without customers having to pay for features and peripherals that are not needed. In addition to XLP technology, 5V operation, and mTouch sensing and communication peripherals, these MCUs feature up to 28 KB of self-write program memory that can be used to store look-up tables and perform field updates. Additionally, up to 10x the number of Capture-Compare PWMs enable the implementation of lighting and motor-control designs, and a temperature-indicator module can perform temperature measurements.

"Microchip continues to introduce new 8-bit PIC® MCUs to support the broad application space, which requires ease of design, robustness and lower cost," said

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Steve Drehabl, vice president of Microchip's Security, Microcontroller and Technology Development Division. "Our 8-bit Enhanced PIC16F1XXX products have received tremendous market acceptance since their initial launch three years ago, and we are pleased to launch another MCU family based upon this core, enabling a high level of peripheral integration with high memory densities at a competitive price."

Development Tool Support

The PIC16F15XX MCUs are supported by Microchip's full suite of standard development tools, including the PICkit™ 3 Debugger/Programmer (part # PG164130, \$44.95), the MPLAB® IDE, the MPLAB ICD3 In-Circuit Debugger (part # DV164035, \$189.99) and the PM3 Universal Device Programmer (part # DV007004, \$895.00); as well as the HI-TECH C® Compiler for PIC10/12/16 MCUs. All of these tools are available for purchase today, at <http://www.microchip.com/get/WAF8>.

Packaging, Pricing & Availability

The PIC16F(LF)1516 and PIC16F(LF)1518 MCUs are available in 28-pin SOIC, SPDIP, SSOP and

4 mm x 4 mm UQFN packages. The PIC16F(LF)1517 and PIC16F(LF)1519 MCUs are available in 40- and 44-pin PDIP, 10 mm x 10 mm TQFP and 5 mm x 5 mm UQFN packages. The PIC16F(LF)1526 and PIC16F(LF)1527 MCUs are available in 64-pin 9 mm x 9 mm QFN and 10 mm x 10 mm TQFP packages. Volume pricing starts at \$0.68 each for the 28-pin parts.

Samples can be ordered today at <http://www.microchip.com/get/A9JM>, and volume-production quantities can be ordered today at microchipDIRECT (<http://www.microchip.com/get/WAF8>). For further information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at <http://www.microchip.com/get/UKE9>. To purchase products mentioned in this press release, go to microchipDIRECT or contact one of Microchip's authorized distribution partners.

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