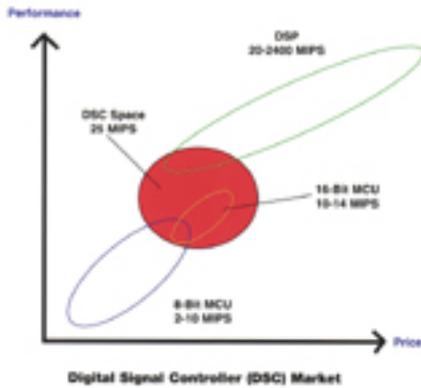


## 16 Bit Family for Digital Signal Control



Microchip Technology Inc. today announced plans to enter the emerging high-volume digital signal control marketplace with the high performance dsPIC family. The 16-bit dsPIC digital signal controller combines the control advantages of a microcontroller with the high computation speed of a digital signal processor (DSP) to produce a single-chip solution for embedded systems designs.

More applications require higher computational power in order to control a growing number of functions and rich feature sets in thousands of products. The digital signal control market combines the attributes of microcontrollers and digital signal processing to address embedded control applications.

The dsPIC family of digital signal controllers targets microcontroller-based applications that require varied levels of digital signal processing capability. The dsPIC devices help close the performance gap between 16-bit microcontrollers and low-end DSPs. The digital controllers are also an ideal solution for traditional 16-bit microcontroller applications.

The dsPIC family provides DSP functionality in the familiar PIC microcontroller Integrated Design Environment (MPLAB IDE), offering an easy-to-implement solution to engineers familiar with microcontrollers. The dsPIC family addresses the inherent differences between DSPs and microcontrollers. The dsPIC family also provides a single-chip solution that can eliminate additional components that would be required for a similar design today, resulting in board space and system cost. With on-board DSP functionality in a high performance microcontroller architecture, the dsPIC family targets thousands of horizontal applications.

Applications that can utilize the advantages of digital signal controllers include: induction motors in HVAC, energy efficient motor control for white good appliances, Internet-connected appliances, automotive, feature telephones, digital answering machines, low-speed software modems, line card, POS terminals, vending machines, biometric security, high-end uninterruptible power supplies and power supply management.

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The dsPIC family brings easy-to-use high performance DSP functionality and 16-bit microcontrollers to the familiar PICmicro microcontroller architecture and design environment. The typical application for a dsPIC device is anticipated to achieve up to a 25x performance increase over most 8-bit microcontrollers. Available in a variety of pin configurations, the dsPIC family is expected to be optimized for high level languages while featuring DSP functionality, a peripheral set and easy-to-use development tools.

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