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# Microchip Integrates and Simplifies Graphics on PIC24F Microcontrollers, Provides up to 96 KB RAM

New MCU Family Reduces Costs by Eliminating External RAM and Controllers for Graphics Displays, USB and Touch Sensing; Free Graphics Software Tools Provided

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, analog and Flash-IP solutions, today announced the eight-member PIC24FJ256DA microcontroller family, which integrates three graphics acceleration units and a display controller, along with 96 Kbytes of RAM. This integration reduces system costs and makes it practical to add advanced graphics displays for a wide range of embedded applications, by eliminating the need for external RAM and a display controller. Additional savings are achieved through the integrated peripherals for USB and capacitive touch sensing. To enable quick time to market, Microchip's Graphics Display Design Center provides a host of resources for application designers, such as the free and easy-to-use Graphics Library and Visual Design Tool.

Watch a video on this new microcontroller family: http://www.youtube.com/watch?v=NPexAs51sXM

With consumers now accustomed to advanced graphics and touch sensing in their portable electronics, designers must bring these interfaces quickly and at low cost to a vast array of embedded products. Building on its broad portfolio of 8-, 16- and 32-bit PIC(R) microcontrollers for segmented and graphics display applications, Microchip's PIC24FJ256DA family makes it feasible for designers to migrate beyond fixed-function, segmented LCDs to STN, TFT and OLED displays with up to VGA resolution. This family also features 24 channels of on-chip mTouch(TM) capacitive touch sensing, which enable a large number of buttons, sliders and keys. Additionally, the integrated Full-Speed USB Embedded Host, Device and On-the-Go module allows end users to easily upgrade software, log data and customize settings.

"Until now, the latest graphics interfaces were beyond the reach of most embedded applications, in terms of both cost and complexity," said Mitch Obolsky, vice president of Microchip's Advanced Microcontroller Architecture Division. "By integrating all of the hardware needed to drive modern graphics displays onto a single microcontroller, along with touch sensing and USB modules, Microchip is enabling embedded designers to modernize and differentiate their products. Plus, we provide the software tools and examples our customers need to quickly and easily develop the graphics content of their applications."

Example applications for the PIC24FJ256DA family include: consumer (thermostats, cordless phones, remote controls, gaming accessories); home appliance (coffee makers and other counter-top appliances, ovens, refrigerators, washing machines); industrial (points of

sale, remote terminals); and portable medical (glucometers, blood-pressure monitors, portable ECGs).

Development Support

Microchip provides a complete development platform--along with Webinars and hands-on training at its worldwide network of Regional Training Centers--to make the design of embedded applications with modern graphical interfaces even easier. This platform comprises Microchip's free and performance-optimized Graphics Library, which comes with the full source code, supports multiple fonts and languages, and includes a host of pre-made graphics objects. Complementing this Library is the free Graphics Display Designer software, which enables first-time users with a visual wizard for designing user interfaces. The Graphics Library also comes with pre-configured interfaces for capacitive-touch pads and sliders, and resistive touch screens. Both tools are fully compatible with Microchip's free MPLAB(R) Integrated Development Environment, and can be downloaded today from http://www.microchip.com/get/89VU.

Rounding out this platform, Microchip created the PIC24FJ256DA210 Development Kit to enable out-of-the-box graphics development. This kit is available today for $399.99 (part # DV164039), and includes:

- PIC24FJ256DA210 Development Board, with capacitive-touch pads, USB Host and Device connectors, extra Flash and RAM to store more objects and fonts, an expansion slot for PICtail(TM) Plus daughter boards, and a display connector
- Microchip's 3.2" QVGA and Prototype Graphics Display Boards
- MPLAB ICD 3 for programming and debugging.

The PIC24FJ256DA210 Development Board can also be purchased separately for $89.99 (part # DM240312). For more information, visit http://www.microchip.com/get/89VU.

Pricing, Packaging & Availability

All eight members of the PIC24FJ256DA family are available today for sampling and volume production, starting at $4.14 each in 10,000-unit quantities. The PIC24FJ128DA106, PIC24FJ256DA106, PIC24FJ128DA206 and PIC24FJ256DA206 MCUs are available in 64-pin TQFP and QFN packages. The PIC24FJ128DA110, PIC24FJ256DA110, PIC24FJ128DA210 and PIC24FJ256DA210 MCUs are available in 100-pin TQFP and 121-pin BGA packages. For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at http://www.microchip.com/get/89VU.

About Microchip Technology

Microchip Technology Inc. (NASDAQ: MCHP) is a leading provider of microcontroller, analog and Flash-IP solutions, 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 http://www.microchip.com/get/KE3T.

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