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Microchip Introduces the Industry's First MCU with Integrated 2D GPU and Integrated DDR2 Memory for Groundbreaking Graphics Capabilities

PIC32MZ DA MCUs Simplify Graphics Design for 24-Bit Color and Large Display Sizes Using MPLAB® Harmony Tools and Support

CHANDLER, Ariz., May 30, 2017 (GLOBE NEWSWIRE) -- The **32-bit PIC32MZ DA** microcontroller (MCU) family is the industry's first MCU with an integrated 2D Graphics Processing Unit (GPU) and up to 32 MB of integrated DDR2 memory. This combination from Microchip Technology Inc. (NASDAQ:MCHP) gives customers the ability to increase their application's color resolution and display size (up to 12 inches) with easy-to-use microcontroller (MCU) based resources and tools including the MPLAB® Integrated Development Environment (IDE) and MPLAB Harmony software framework.

The PIC32MZ DA family bridges the graphics performance gap between MCUs and microprocessor units (MPUs) for customers who may wish to stay in the familiar design environment of an MCU. The devices provide MPU-like graphics capabilities with the seamless integration and programming model of Microchip's PIC32 and MPLAB IDE and Harmony software framework. These tools provide a visual graphics design environment, custom display driver creation, graphics libraries and an asset converter that can take a custom graphic and optimize it for their chosen display size.

Features of the new devices include:

- Three-layer graphics controller capable of driving 24-bit color Super eXtended Graphics Array (SXGA) displays
- High-performance 2D Graphics Processing Unit (GPU)
- 32 MB integrated SDRAM or 128 MB externally addressable SDRAM option providing expansive storage
- Ample on-chip Flash, SRAM and connectivity options

"This new family of devices breaks through perceived MCU graphics barriers," said Rod Drake, vice president of Microchip's MCU32 business unit. "Customers are demanding greater HMI capability in their designs. Now they can upgrade their applications with the ease of an MCU without increasing board complexity or adding new programming resources."

The addition of DDR2 memory, a first for MCUs throughout the industry, enables 2x faster throughput and large graphics buffers and/or storage for increasingly complex communications protocol stacks and algorithms. The result is smooth, striking interfaces and fewer product variants in a crowded communications control market.

“Offering the largest total integrated memory in the industry, these MCUs give designers the memory space needed for their applications at twice the memory speed of anything else in the market,” said Drake. “The combination of the PIC32MZ DA MCU and MPLAB Harmony will make for simpler graphic designs than have ever been experienced in the industry.”

For more information about the PIC32MZ DA family, visit:
www.microchip.com/PIC32MZDA_Main681

Development Support
The PIC32MZ DA family is supported by Microchip’s MPLAB Harmony Integrated Software Framework, MPLAB X Integrated Development Environment (IDE), MPLAB XC32 Compiler for PIC32, MPLAB ICD 3 In-Circuit Debugger and MPLAB REAL ICE™ In-Circuit Emulation System.
Several additional tools are available including:

- PIC32MZ Embedded Graphics with Stacked DRAM (DA) Starter Kit (DM320010) for $130
- PIC32MZ Embedded Graphics with Stacked DRAM (DA) Starter Kit (Crypto) (DM320010-C) for $130
- PIC32MZ Embedded Graphics with External DRAM (DA) Starter Kit (DM320008) for $140
- PIC32MZ Embedded Graphics with External DRAM (DA) Starter Kit (Crypto) (DM320008-C) for $140

Pricing and Availability
Devices in the PIC32MZ DA family are offered in a variety of package options including a 169-ball BGA, a 176-pin LQFP and a 288-ball BGA for external DDR2 applications. Devices in the family are available today in volume production starting at $7.73 in 10,000 unit quantities. For additional information, contact any Microchip sales representative or authorized worldwide distributor. To purchase products mentioned in this press release, go to Microchip’s easy-to-use online sales channel **microchipDIRECT** or contact one of Microchip’s authorized distribution partners.

Resources
High-res images are available through Flickr or editorial contact (feel free to publish):

- PR Graphic: **www.flickr.com/photos/microchiptechnology/34316349240/sizes/l**
- Block Diagram: **www.flickr.com/photos/microchiptechnology/34316347030/sizes/l**

About Microchip Technology
Microchip Technology Inc. (NASDAQ:MCHP) is a leading provider of microcontroller, mixed-signal, 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 **www.microchip.com**.

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