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Microchip's New Digital LED Lighting Development Kit Makes it Easy to Add Intelligence and Improve Efficiency in LED Lighting Applications

Free Reference Design and dsPIC33 'GS' Family of Digital Power Devices Helps Designers Painlessly Lower Product Costs, Reduce Size and Improve Efficiency

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, analog and Flash-IP solutions, today announced its Digital LED Lighting Development Kit. Complete documentation, including software and Gerber files, can be downloaded for free today from Microchip's Web site at http://www.microchip.com/get/30J0.

LED lighting designers are being challenged to meet the rapidly expanding demand for green, smart energy technologies while differentiating their products. Microchip's Digital LED Lighting Development Kit enables designers to quickly leverage the capabilities and performance of the dsPIC33 'GS' series of Digital Signal Controllers (DSCs) to develop LED lighting products. The dsPIC33 'GS' DSC and this reference design allow developers to create a 100% digitally controlled ballast function, while including advanced features such as dimming and color hue control. The dsPIC33 'GS' DSCs can support an entire system implementation for LED lighting products, including power-conversion circuits, such as AC-to-DC and DC-to-DC conversion, along with functions such as Power Factor Correction (PFC), which are necessary for a complete product and lower the overall system cost.

"This reference design enables our customers to develop LED lighting products that are 100% digitally controlled and are very cost effective," said Sumit Mitra, vice president of Microchip's High Performance Microcontroller Division. "By using the flexible dsPIC33F 'GS' series of DSCs, customers can easily customize and differentiate by making simple modifications to the control software."

Benefits offered by the digital-power techniques in this reference design and the dsPIC33 'GS' series of DSCs include:

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--  Reduced System Cost via higher integration
--  Higher Efficiency using digital-control techniques
--  Flexible and reusable designs
--  Advanced features implemented in software
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Example Applications

LED lighting applications supported by Microchip's LED Lighting Development Kit include dimmable LCD backlighting, signage, LED replacement of fluorescent tubes and

incandescent bulbs, architectural lighting, and automotive lighting applications. Automotive lighting products include exterior applications, such as headlights, daytime running lights and signal lights.

Additional key features of Microchip's Digital LED Lighting Development Kit include:

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--  Color control for RGB LEDs
--  Flexible input voltage support, including both Buck and Boost topologies
--  Fully dimmable
--  Full digital control
--  Fault protection
--  Fully controlled with a single dsPIC33FJ16GS504 DSC
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Availability

Complete documentation for Microchip's Digital LED Lighting Development Kit, including software and Gerber files, can be downloaded for free today from Microchip's Web site at http://www.microchip.com/get/30J0. For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at http://www.microchip.com/get/LE1R.

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, Ariz., Microchip offers outstanding technical support along with dependable delivery and quality. For more information, visit the Microchip website at http://www.microchip.com/get/LE1R.

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Tags / Keywords: Digital Lighting, LED Lighting, Digital Ballast, Reference Design, Digital Power, Green Power, Smart Energy, dsPIC, DSC, Digital Signal Controller, RGB, Microchip, MCHP

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Source: Microchip Technology Inc.
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