MSi Launches Marvell-Powered LED Family Into Retail For 3M Marvell's 88EM8183 LED driver IC selected by 3M/MSi for new line of LED bulbs for nationwide distribution

SANTA CLARA, Calif., April 24, 2013 /<u>PRNewswire</u>/ -- <u>Marvell</u> (Nasdaq: MRVL) today announced that MSi LED Lighting has selected the Marvell[®] 88EM8183 deep dimming single-stage AC/DC LED driver integrated circuit (IC) to power its new line of LED bulbs they are manufacturing for 3M. MSi selected Marvell's 88EM8183 LED driver because of its high compatibility with a wide variety of installed dimmers, deep dimming performance similar to that of incandescent bulbs and the lowest component count on the market. Leveraging Marvell's driver, 3M is unveiling the industry's leading dimmer compatible LED bulbs for distribution at major retailers nationwide.

(Logo: https://investor.marvell.com/image/Marvell_logo.jpg)

"Today's consumers demand low-cost, residential LED lighting with advanced dimming capabilities. Together with MSi and 3M, we are not only meeting this demand, but furthering the mass market adoption of LED solutions," said Kishore Manghnani, vice president of Green Technology Products at Marvell. "We are pleased MSi and 3M have chosen Marvell for their LED bulbs. Marvell's highly integrated 88EM8183 LED driver helps MSi deliver high-performance, affordable LED bulbs in multiple form factors for 3M at leading U.S. retailers."

Marvell's highly integrated LED driver drastically reduces the bill of materials (BOM), enabling MSi to distribute cost-efficient and high-performance 3M LED bulbs in retailers nationwide. Marvell's 88EM8183 driver significantly improves performance of the bulb to achieve smooth, deep dimming down to 1 percent of current, compared to competitive solutions that are only capable of dimming down to 10 to 20 percent of current. Additionally, the 88EM8183 IC is compatible with many different types of (TRIAC) wall box dimmers from a wide variety of global manufacturers.

"To meet the needs of consumers, it was essential that we evaluated several vendors based on their ability to support a variety of installed dimmers at the price point we desired," said William Weiss with MSi. "Marvell's 88EM8183 LED driver was the best choice for our bulbs because of its performance, affordability and overall quality. By lowering the component count by nearly half, Marvell's driver significantly lowers the bill of materials, helping our team distribute bulbs at a lower price to end users. Marvell's solution also hosts the greatest level of integration, allowing our team to deliver different bulb form factors to consumers across the nation."

Features of the Marvell 88EM8183

Marvell's 88EM8183 IC:

- Implements advanced dimming control algorithms to comply with the National Electrical Manufacturers Association Solid State Lighting 6 (NEMA SSL 6) dimming standard.
- Employs Marvell's unique primary side current control method, which eliminates the need for an optocoupler and associated feedback circuit while delivering high regulation accuracy over wide-range AC input.
- Integrates a high-voltage start-up circuit to supply energy to the chip during power-up, eliminating an external field-effect transistor (FET) and associated power circuits.
- Monitors dimmer status and manages dimmer load to maintain proper operations through the internal digital core and analog circuit, eliminating external dimmer bleeder circuits required by existing solutions on the market.
- Delivers up to 90 percent efficiency, a power factor above 0.95 and lower than 20 percent total harmonics distortion via unique design techniques, enabling lighting OEMs and ODMs to exceed ENERGY STAR requirements.
- Supports both fly-back and buck-boost topologies for isolated and non-isolated bulbs.

Related Links:

- Product information: http://www.marvell.com/led-lighting/drivers/88EM8183/
- Marvell media materials: <u>http://www.marvell.com/company/press_kit/</u>

About Marvell

Marvell (NASDAQ: MRVL) is a global leader in providing complete silicon solutions enabling the digital connected lifestyle. From mobile communications to storage, cloud infrastructure, digital entertainment and in-home

content delivery, Marvell's diverse product portfolio aligns complete platform designs with industry-leading performance, security, reliability and efficiency. At the core of the world's most powerful consumer, network and enterprise systems, Marvell empowers partners and their customers to always stand at the forefront of innovation, performance and mass appeal. By providing people around the world with mobility and ease of access to services adding value to their social, private and work lives, Marvell is committed to enhancing the human experience.

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