

Power Integrations Introduces Driver Reference Designs for CREE LED Bulbs

6/11/2014

Simple, reliable drivers enable efficient, long-lasting PAR 30 and PAR 38 bulbs

SAN JOSE, Calif.--(BUSINESS WIRE)-- Power Integrations (Nasdaq: **POWI**), the leader in high-efficiency, high-reliability LED-driver ICs, today announced four reference designs describing drivers for dimmable PAR 30 and PAR 38 LED light bulbs. Jointly developed by Power Integrations and CREE, the designs showcase the combination of Power Integrations' **LYTSwitch™-4** driver ICs and CREE MT-G2 EasyWhite LEDs. DER-364 and DER-365 detail low- and high-line PAR 30 LED bulb drivers, respectively, while DER-350 and DER-396 address low- and high-line PAR 38 bulbs. These and other reference designs are hosted at www.powerint.com/ledrivers/cree.

LYTSwitch-4 ICs are highly efficient and deliver accurate output current regulation in bulb and tube replacement applications and high-bay lighting. The devices simplify design and reduce cost while ensuring that lamps deliver uniform light output and provide exceptional performance in TRIAC-dimmable applications. **LYTSwitch-4** ICs combine PFC and constant current in a single-stage topology, resulting in power factor greater than 0.95 and typical efficiencies of better than 90%. The single-stage approach also eliminates temperature-sensitive electrolytic bulk capacitors, greatly increasing the bulbs' reliability and lifetime. **LYTSwitch-4** ICs also operate at a high switching frequency (132-kHz), enabling smaller, lower-cost magnetics to be used, while frequency jittering reduces the need for EMI filtering. These factors combine to deliver LED-driver designs that fit easily into space-restricted bulbs.

Designs based on the new drivers easily meet EN61000-3-2C regulations for total harmonic distortion (THD), and can achieve less than 10% THD. Regulation is better than +/- 5% across load and production spread, reducing the need for over-design to meet minimum luminance targets and cutting system cost. LYTSwitch-4 drivers deliver excellent dimming performance down to low conduction angles with leading-edge or trailing-edge TRIAC dimmers. Start-up is very fast – typically less than 500 milliseconds even when dimmed to less than 10% light output – and

pop-on is virtually eliminated.

Comments Andrew Smith, senior product marketing manager for Power Integrations: “We have worked closely together with CREE to deliver real-world LED lighting systems that live up to their potential, delivering reduced power consumption and increased lifetime. These reference designs enable designers to realize cost-effective, long-lasting LED bulbs simply and quickly.”

DER-364, DER-365, DER-350 and DER-396 are all downloadable at www.powerint.com/en/design-support/reference-designs/design-examples, or by visiting www.powerint.com/ledrivers/cree. Product datasheet and product introduction videos are also available on the Power Integrations website at www.powerint.com/products/lytswitch-family/lytswitch.

About Power Integrations

Power Integrations, Inc., is a Silicon Valley-based supplier of high-performance electronic components used in high-voltage power-conversion systems. The company's integrated circuits and diodes enable compact, energy-efficient AC-DC power supplies for a vast range of electronic products including mobile devices, TVs, PCs, appliances, smart utility meters and LED lights. CONCEPT IGBT driver systems enhance the efficiency, reliability and cost of high-power applications such as industrial motor drives, solar and wind energy systems, electric vehicles and high-voltage DC transmission. Since its introduction in 1998, Power Integrations' EcoSmart® energy-efficiency technology has prevented billions of dollars' worth of energy waste and millions of tons of carbon emissions. Reflecting the environmental benefits of the company's products, Power Integrations' stock is included in the NASDAQ® Clean Edge® Green Energy Index, The Cleantech Index®, and the Ardour Global IndexSM. For more information, including design-support tools and resources, please visit www.powerint.com; visit Power Integrations' **Green Room** for a comprehensive guide to energy-efficiency standards around the world.

Power Integrations, LYTSwitch, and the Power Integrations logo are trademarks or registered trademarks of Power Integrations, Inc. All other trademarks are the property of their respective owners.

Photos/Multimedia Gallery Available: <http://www.businesswire.com/multimedia/home/20140611006516/en/>

Source: Power Integrations

Media Contact

Power Integrations, Inc.

Peter Rogerson, 408-414-8573

progerson@powerint.com

or

Press Agency Contact

BWW Communications

Nick Foot, 44 (0) 1491-636 393

nick.foot@bwwcomms.com