power integrations

NEWS RELEASE

New LED-Lighting Driver Design from Power Integrations Delivers Long Lifetime and High Efficiency

12/18/2012

50,000-hour lifetimes made possible for exterior lighting using LinkSwitch™-PH ICs

SAN JOSE, Calif.--(BUSINESS WIRE)-- **Power Integrations** (NASDAQ: **POWI**), the world leader in high-efficiency, high-reliability LED-driver ICs, today announced a new long-lifetime LED-driver reference design. **DER-340** describes a wide-range (90 VAC to 308 VAC), high-power-factor LED-driver power supply that is suitable for high-bay, exterior and street-lighting applications.

Power Integrations reference design DER-340 (Photo: Business Wire)

The LED driver detailed in **DER-340** uses **Power Integrations**' **LinkSwitch-PH** family of power conversion ICs which combine single-stage PFC and accurate CC output control. Single-stage LED driver architectures typically yield up to 5% higher efficiency than two-stage designs, which combine losses from separate PFC and constant-current circuits. High-voltage aluminum electrolytic bulk capacitors - the least reliable component in traditional lighting power supply circuits - are not required in the single-stage approach, making 50,000-hour lifetimes attainable. In addition to providing a very effective solution for standard lighting applications in benign environments, **DER-340** copes with conditions of poor ventilation and high temperatures in industrial applications through the use of ceramic output capacitors and an accurate hysteretic thermal shutdown feature included in the **LinkSwitch-PH** IC.

Comments Andrew Smith, product marketing manager for **Power Integrations**: "Power supplies are often the weak link in LED lamps. This is especially true for industrial and infrastructure lighting applications where difficult operating conditions can quickly cause traditional power supplies to fail. This reduces the cost-effectiveness of solid-state lighting and conflicts with fixture lifetime expectations built on the basis of the longevity of LEDs alone.

With high power conversion efficiency and no high-voltage aluminum electrolytic bulk capacitors, **DER-340** provides an architecture that avoids this problem and delivers on the long-lifetime promise."

The single-stage topology also reduces component count, allowing developers to use single-sided boards and smaller enclosures. **DER-340** is highly energy-efficient — above 88% at 230 VAC and over 87% at 120 VAC. Output current tolerance is less than 5% across line, load and temperature. **Power Integrations**' **LinkSwitch-PH** ICs feature comprehensive integrated protection and reliability features including: output open circuit / output short-circuit protection with auto-recovery; line input overvoltage shutdown which extends voltage withstand during line faults; and auto-recovering thermal shutdown with large hysteresis that protects both components and the PCB. **DER-340** LED-driver power supplies meet all applicable international standards including IEC 61000-4-5, IEC 61000-3-2 Class C, and EN55015 B.

DER-340 is available for free download via the **Power Integrations** website at **http://www.powerint.com/sites/default/files/PDFFiles/der340.pdf**.

About Power Integrations

Power Integrations is the leading supplier of high-voltage integrated circuits used in energy-efficient power conversion. The company's innovative technology enables compact, energy-efficient power supplies in a wide range of electronic products, in AC-DC, DC-DC, and LED lighting applications. Since its introduction in 1998, Power Integrations' EcoSmart™ energy-efficiency technology has saved an estimated $5 billion of standby energy waste and prevented millions of tons of CO2 emissions. The company's **Green Room** web site provides a wealth of information about "energy vampires" and the issue of standby energy waste, along with a comprehensive guide to energy-efficiency standards around the world. Reflecting the environmental benefits of EcoSmart technology, Power Integrations' stock is included in The Cleantech Index® and the NASDAQ® **Clean Edge**® Green Energy Index. For more information, please visit **www.powerint.com**.

Photos/Multimedia Gallery Available: **http://www.businesswire.com/multimedia/home/20121218005019/en/**

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

PR Agency

nick.foot@bwwcomms.com

Source: Power Integrations