

## Power Integrations Unveils A19 LED Driver Reference Design Targeting 100 W Incandescent Bulb Replacements

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Dimmable 18 W LED Driver Combines High Efficiency, 0.98 Power Factor and Low Parts Count

SAN JOSE, Calif.--(BUSINESS WIRE)-- **Power Integrations** (Nasdaq:**POWI**), maker of the most efficient, longest-lasting off-line LED driver ICs, today announced **DER-323**, a reference design for an 18W, 88%-efficient, non-isolated A19 LED driver based on LNK460VG, a low-profile IC from the company's **LinkSwitch™-PL** family. The design is suitable for a 100 W incandescent bulb replacement and is optimized for low-line (90 VAC to 135 VAC) operation. The circuit is low-cost, requiring only a simple single-sided board and 25 components. No potting is necessary and the transformer is replaced by a low-cost inductor.

**DER-323** utilizes a simple buck-boost converter topology that fits easily inside the A19 bulb. The design is EN61000-3-2 (C) compliant and has a high power factor of over 0.98, easily satisfying commercial and consumer compliance requirements. Because **LinkSwitch-PL** ICs combine both PFC and CC converter functions in a single-stage topology, no electrolytic bulk capacitor is required, resulting in a very long operational life.

Comments Andrew Smith, product marketing manager at **Power Integrations**: "The lighting industry typically asks for 80% efficiency for drivers targeting 60 W A19 bulb replacements. To achieve viable LED-based replacements for 75 W and 100 W bulbs, much higher efficiency is needed in order to reduce the heat dissipated by the driver. The 88% efficiency of **DER-323** satisfies this need and makes the thermal design of the bulb straightforward and inexpensive. **DER-323** is also compact, reliable and easy to manufacture thanks to its low component count, single-stage architecture and use of a low-cost inductor rather than a transformer."

**DER-323** is available for download at: <http://www.powerint.com/sites/default/files/PDFFiles/der323.pdf>

## 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 <http://www.powerint.com>; visit Power Integrations' **Green Room** for a comprehensive guide to energy-efficiency standards around the world.

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