

Power Integrations Releases Compact 25-Watt LED Lighting Ballast Reference Design Sized for T8 Tubes

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LinkSwitch™-PH LED driver ICs meet PF and THD specifications, reach 91% efficiency; target commercial and industrial lighting

SAN JOSE, Calif.--(BUSINESS WIRE)-- Power Integrations (NASDAQ:**POWI**), the world leader in LED driver ICs for general lighting applications, today published a new reference design for a 25-watt LED T8 tube ballast power supply. Notable for industry-leading efficiency of greater than 91%, the design (**DER-287**) also meets commercial requirements for power factor (PF greater than 0.9) and harmonic distortion (EN61000-3-2 Class C). **DER-287** is a single-stage converter built around LNK409EG, a member of the **LinkSwitch-PH** family of LED driver ICs. Single-stage technology greatly increases product lifetime by eliminating the opto-isolators and large aluminum electrolytic input bulk capacitors required by conventional two-stage solutions.

Explains Andrew Smith, product marketing manager at Power Integrations: "Achieving very high power-conversion efficiency is as critical as LED choice in maximizing overall luminous efficacy of a lighting fixture. Efficiencies above 88% are extremely difficult to achieve cost-effectively in a T8 tube form factor unless a single-stage topology is used; this design easily exceeds 91%." Smith added: "Most regions require either low THD or high PF in commercial and industrial lighting installations — specifications that the **LinkSwitch-PH** LED driver IC easily meets, enabling designs that can be used worldwide. Details are available in this **new report**."

In addition to the highly integrated monolithic design that combines controller, driver, and switching MOSFETs into a single package, Power Integrations' **LinkSwitch-PH** family features a number of protection features, including over-temperature and over-current protection. This means that very few external components are required to implement the solution — a very important consideration in compact T8 tube enclosures.

This new design example report (**DER-287**) can be downloaded from the Power Integrations website at www.powerint.com/sites/default/files/PDFFiles/der287.pdf. The **LinkSwitch-PH** video, data sheet, application notes, and other design examples are available on the company's website at <http://www.powerint.com/linkswitch-ph>.

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 \$4.9 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.

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