

Power Integrations Sets New Standard for Power Density in LED-Driver Reference Design for T8-Tube Replacement

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New design delivers small size, high efficiency and long-lifetime for retrofit tube applications

SAN JOSE, Calif.--(BUSINESS WIRE)-- **Power Integrations** (NASDAQ: **POWI**), the leader in high-voltage integrated circuits for energy-efficient power conversion, today announced two new reference designs describing high-efficiency, non-isolated, high-power-factor (PF) LED drivers for T8 tubes. The designs feature low component count and leverage simple magnetics and single-sided boards yielding industry-leading power densities of 14.2 W/in³. Based on the **LNK460KG** LED driver from Power Integrations' **LinkSwitch-PL** family of ICs, the circuits detailed in **DER-337** (high-line) and **DER-345** (low-line) use single-stage non-isolated topologies which result in a profile of only 8 mm - small enough to be mounted behind the LEDs in the T8 tube.

T8-tube reference designs describing high-efficiency, non-isolated, high-power-factor (PF) LED drivers. (Photo: Business Wire)

The buck-boost (**DER-337**) or buck (**DER-345**) configurations deliver a power factor greater than 0.9 and low THD, meeting EN61000-3-2 C limits. The designs are EMI compliant, easily meeting the EN55015 (EMI) class B specification. The integrated single-stage driver IC controls both PFC and constant-current output resulting in a solution that uses fewer than 30 components. Both drivers deliver 20 W (85 V at 240 mA) at an efficiency as high as 92 % (**DER-337**) and 89 % (**DER-345**).

Comments Andrew Smith, product marketing manager at **Power Integrations**: "The LED tube market is moving to non-isolated drivers, which boost system efficiency and reduce the temperature of the driver board and components. These boards use approximately half the number of components of isolated designs and are typically 3 - 4 % more efficient. With a high PF and low THD they perfectly suit commercial and industrial lighting applications

anywhere in the world."

Download **DER-337** at <http://www.powerint.com/sites/default/files/PDFFiles/der337.pdf>; **DER-345** at <http://www.powerint.com/sites/default/files/PDFFiles/der345.pdf>. Each document contains the LED driver specification, schematic, PCB details, bill of materials, transformer documentation and detailed performance characteristics.

About Power Integrations

Power Integrations, Inc., is a Silicon Valley-based supplier of high-voltage integrated circuits and other high-voltage components used in energy-efficient power conversion. The company's innovative technologies enable compact, reliable AC-DC power supplies for a vast range of electronic products including mobile devices, TVs, PCs, appliances, smart utility meters and LED lights. 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.

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Photos/Multimedia Gallery Available: <http://www.businesswire.com/multimedia/home/20121204005476/en/>

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