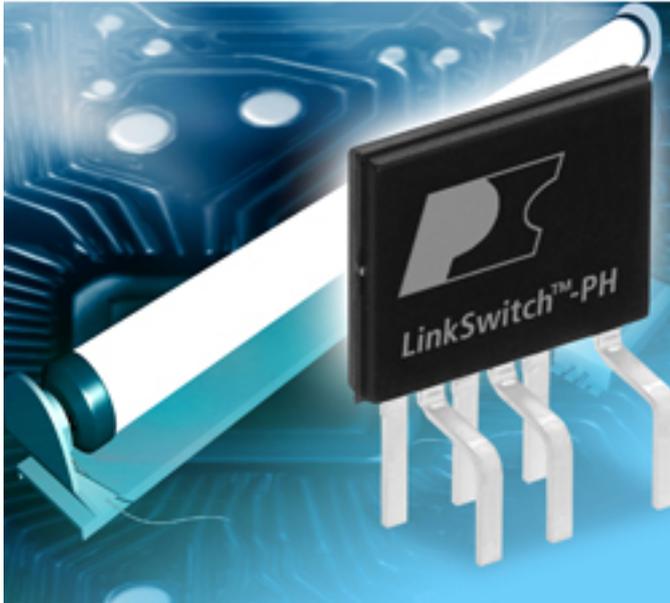


LED Driver Reference Design Describes High-Efficiency Universal-Voltage Fluorescent Tube Replacement



Power Integrations today announced a new reference design (DER-286) describing a 30 W LED tube replacement ballast power supply capable of achieving industry-leading efficiency levels of over 90% across a wide input-voltage range while meeting worldwide requirements for power factor (PF) and total harmonic distortion (THD).

The DER-286 LED driver reference design is based on the LNK419EG, a member of Power Integrations' LinkSwitch-PH family of ICs. LinkSwitch-PH devices combine a controller and 725 V MOSFET to dramatically reduce the complexity and component count of the design, making it ideal for the increasingly cost-sensitive market for LED-based fluorescent-tube replacements. The LinkSwitch-PH device performs both PFC and constant-current functions in an advanced single-stage topology, eliminating the need for large, temperature-sensitive electrolytic bulk capacitors, which in turn reduces the size and increases the lifetime of the power supply.

Comments Andrew Smith, product marketing manager at Power Integrations: "Many end users prefer the convenience of a single inventory item that can support installations operating from the U.S. residential supply of 90 VAC to 120 VAC and also the high nominal voltage 277 VAC services of industrial applications. This is easy to achieve using LED tubes and ballasts based on the LinkSwitch-PH device." Smith continued: "EISA regulations due to be implemented in 2012 advance the minimum luminous efficacy of fluorescent tubes, severely challenging the large T12 type and serving notice on T8 and T5 tubes with inefficient older ballasts. LED luminaires based on our LinkSwitch-PH ICs, such as DER-286, are an efficient, cost-effective and reliable replacement technology."

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DER-286 is available at

<http://www.powerint.com/sites/default/files/PDFFiles/der286.pdf> [1].

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[1] <http://www.powerint.com/sites/default/files/PDFFiles/der286.pdf>