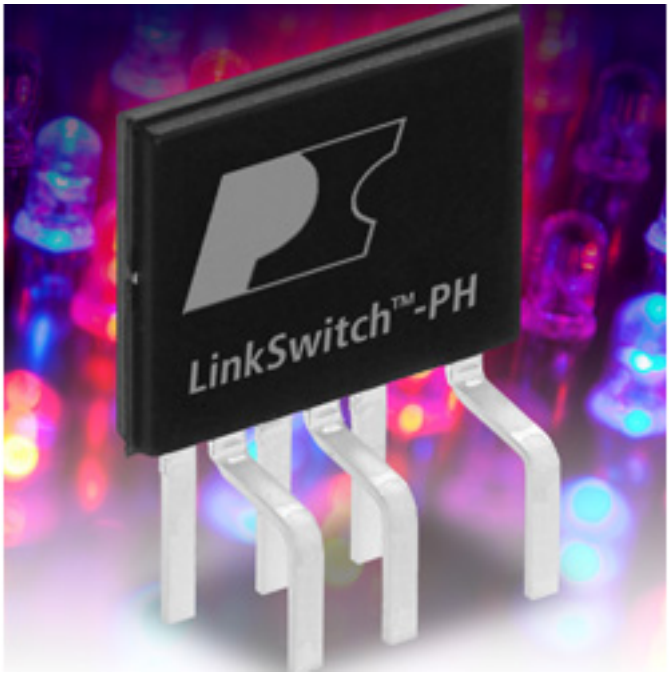
LED Driver ICs are 88% efficient



Power Integrations today announced seven new members of its popular LinkSwitch-PH family of LED driver ICs. Optimized for industrial and commercial settings where high efficiency and system longevity are dominant requirements, the new devices (LNK413-LNK419) are suitable for lighting applications ranging from 3 W bulbs to 55 W replacements for fluorescent lighting fixtures. The devices, which can achieve up to 88% efficiency, feature a PWM-dimmable single-stage controller with both power factor correction (PFC) and accurate constant current (CC) power conversion functionality. The integrated PFC and CC functions allow multiple drivers to be connected in parallel to drive exterior and street area lights efficiently and with functional redundancy.

LinkSwitch-PH devices incorporate the PFC/CC controller, a 725 V MOSFET and MOSFET driver into a single package, which simplifies layout and design and eliminates parasitic elements between the controller and MOSFET. The new ICs enable the ultimate in high reliability at low cost by eliminating up to 25 additional components used in traditional isolated flyback designs, including the high-voltage electrolytic bulk capacitor and the optocoupler – the components most likely to limit the lifetime of an LED lamp.

David New, lighting product marketing manager at Power Integrations, said: “These additions to the LinkSwitch-PH range complement the existing family of TRIAC-dimmable devices. Optimized for high efficiency in simple flyback designs and operating at input voltages up to 305 VAC, they enable the development of both single-voltage and universal-input products suitable for industrial and commercial lighting applications. Designers using these devices in solid-state lighting applications can expect the operational life of the driver to match that of its accurately controlled LED array.”

LinkSwitch-PH devices are available now starting at $1.11 each for 10,000-piece quantities. Full technical details, including the product introductory video, datasheet, and design ideas, are available now on the Power Integrations website at www.powerint.com/linkswitch-ph [1].

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[1] http://www.powerint.com/linkswitch-ph