

## Power Integrations Announces 150 W LED-Driver Design with 93% Efficiency, 30% Reduction in Component Count

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High level of integration brings performance and cost benefits to LED streetlights, parking garages, tunnels, warehouses and industrial lighting

SAN JOSE, Calif.--(BUSINESS WIRE)-- **Power Integrations** (Nasdaq: **POWI**), maker of the world's most efficient, longest-lasting off-line LED driver ICs, today announced a reference design kit for a 150 W, 48 V power supply for LED streetlights and other industrial/infrastructure lighting systems. The driver circuit described in **RDR-292** is more than 93% efficient at 230 VAC input and above 91% at 110 VAC. The design delivers a system power factor of greater than 0.97, THD of less than 10%, and easily meets EN61000-3-2 C. Designs can be scaled from 75 W to 400 W, using the same platform, simply by choosing different **HiperPFS™** (PFC) and **HiperLCS™** (LLC) family members and sizing power components appropriately.

**RDK-292** requires fewer than 125 components to implement the driver's PFC, LLC and standby power supply circuits, resulting in low BOM cost and exceptional reliability. The design utilizes a combination of **Power Integrations'** highly integrated **HiperPFS** power-factor-correction IC and the **HiperLCS** resonant converter IC, which together save up to 35 components compared with conventional LLC solutions. **HiperLCS** also permits the use of smaller magnetics and output filter capacitors than typical LLC designs. The design incorporates a **Qspeed™** merged PIN-Schottky diode as well, boosting CCM PFC efficiency by delivering greatly reduced diode recovery losses when compared with conventional ultrafast silicon PFC diodes.

For installations with remote lighting-control systems, the design implements highly efficient standby power-supply functionality based on **Power Integrations' LinkSwitch™-TN** ICs. The addition of a **CAPZero™** X-capacitor discharge

IC delivers further power savings, reducing no-load consumption to around 800 mW at 264 VAC input.

Comments Andrew Smith, product marketing manager at **Power Integrations**: "LED lighting can deliver significant cost savings for municipalities and commercial/industrial enterprises, but these savings cannot be fully realized without efficient, reliable, low-cost driver circuits. **Power Integrations** offers a full range of products — showcased in **RDK-292** — to give designers of high-power LED lighting systems a strong competitive edge."

**RDK-292** contains specification, schematic, BOM, transformer documentation, PCB layout, and performance data.

**RDK-292** ([www.powerint.com/rdk](http://www.powerint.com/rdk)) and **RDR-292**

(<http://www.powerint.com/sites/default/files/PDFFiles/rdr292.pdf>) are available now on the Power Integrations website.

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

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## Media Contact

Power Integrations, Inc.

Peter Rogerson, 408-414-8573

[progerson@powerint.com](mailto:progerson@powerint.com)

or

## Press Agency Contact

Billings Europe PR Agency

Nick Foot, +44 (0) 1491-636 393

[nick.foot@billings-europe.com](mailto:nick.foot@billings-europe.com)

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