



## **Buck Converters from Diodes Incorporated Increase Efficiency at Light Loads**

**Plano, Texas – March 31, 2014** – Diodes Incorporated (Nasdaq: DIOD), a leading global manufacturer and supplier of high-quality application specific standard products within the broad discrete, logic and analog semiconductor markets, today introduced the AP6550x and AP6540x. Implementing a light load efficiency-improvement algorithm, these synchronous DC-DC buck converters achieve an efficiency as high as 96% while delivering continuous load currents of 4A and 5A, respectively. Their current mode control produces a fast transient response and simple loop stabilization, ensuring dependable line and load regulation in distributed point-of-load (POL) power management applications.

By operating at higher fixed switching frequencies of 500kHz and 750kHz, these highly integrated converters are also able to help shrink circuit footprints by minimizing the size of external inductive and capacitive components. The 500kHz 4A-rated AP65402 and 5A-rated AP65502 provide an adjustable output voltage range of 0.925V to 16V, while the 750kHz equivalents, the AP65403 and AP65503, offer a higher range of 2.5V to 16V.

A wide operating voltage range of 4.75V to 17V means the converters are suited for both 5V and 12V bus system design and all devices tolerate a transient peak voltage of up to 7A. Component packaging is the industry-standard exposed pad SO-8EP, with pin-outs identical throughout the product family.

To help increase circuit reliability, the buck converters integrate a broad range of protection features, including thermal shutdown, under-voltage lockout, over-voltage and current-limit protection. A capacitor-programmed soft-start function

is also provided to control inrush current and output voltage overshoot. For further information, visit the Company's website at [www.diodes.com](http://www.diodes.com).

### **About Diodes Incorporated**

Diodes Incorporated (Nasdaq: DIOD), a Standard and Poor's SmallCap 600 and Russell 3000 Index company, is a leading global manufacturer and supplier of high-quality application specific standard products within the broad discrete, logic and analog semiconductor markets. Diodes serves the consumer electronics, computing, communications, industrial, and automotive markets. Diodes' products include diodes, rectifiers, transistors, MOSFETs, protection devices, functional specific arrays, single gate logic, amplifiers and comparators, Hall-effect and temperature sensors; power management devices, including LED drivers, AC-DC converters and controllers, DC-DC switching and linear voltage regulators, and voltage references along with special function devices, such as USB power switches, load switches, voltage supervisors, and motor controllers. Diodes' corporate headquarters and Americas' sales office are located in Plano, Texas. Design, marketing, and engineering centers are located in Plano; San Jose, California; Taipei, Taiwan; Manchester, England; and Neuhaus, Germany. Diodes' wafer fabrication facilities are located in Kansas City, Missouri and Manchester, with four manufacturing facilities located in Shanghai, China, and two joint venture facilities located in Chengdu, China, as well as manufacturing facilities located in Neuhaus and Taipei. Additional engineering, sales, warehouse, and logistics offices are located in Fort Worth, Texas; Taipei; Hong Kong; Manchester; Shanghai; Shenzhen, China; Seongnam-si, South Korea; Suwon, South Korea; Tokyo, Japan; and Munich, Germany, with support offices throughout the world. For further information, including SEC filings, visit Diodes' website at <http://www.diodes.com>.

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