



## **Programmable Buck Converter from Diodes Incorporated Helps Reduce Solution Size**

**Plano, Texas – March 12, 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 AP3440, a PWM synchronous buck DC-DC converter for low-voltage, high-density power systems such as broadband, networking and optical communications infrastructures. With its switching frequency programmable over the range 200kHz to 2MHz, the device enables a reduction in the size of external inductors and capacitors and simplification of power supply design.

The buck converter's operating frequency is set using a timing resistor and is also easily synchronized with an external system clock applied to the same resistor input pin. A wide supply voltage range, 2.95V to 5.5V, makes the AP3440 well-suited for both 3.3V and 5V bus systems.

Packaged in the thermally enhanced V-QFN3030-16 package and integrating a pair of very low on-resistance N-channel power MOSFETs, the converter is capable of driving a 4A load at an efficiency level as high as 94%. The AP3440 ensures excellent line and load regulation, with its current mode control providing fast transient response and cycle-by-cycle current limit.

The buck converter's built-in protection features include over-current and over-voltage protection, thermal shutdown, and a programmable under-voltage lockout (UVLO) function. The UVLO level is internally set at 2.6V, but is easily increased by programming the threshold using a resistor divider network on the enable pin.

To help minimize inrush currents and to support power-up sequencing, the AP3440 also integrates a soft-start function, programmed via an external capacitor. The inclusion of an open-drain 'Power Good' output signals that the device output is within 93% and 107% of its nominal voltage and helps to further reduce circuit footprint. 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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