



Diodes Incorporated's Dual-Phase Buck Controller for High-Current Applications Delivers Improved System Performance

Plano, Texas – February 26, 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 a dual-phase synchronous rectified buck controller, designed to provide a high-integrity supply for distributed high-power architectures. With an operating frequency adjustable between 50Hz to 1MHz per phase, the AP3595 is capable of delivering an output current of up to 60A and suits the power needs of high-end GPU and memory cores.

Available in the standard U-QFN4040-24 package, this compact buck controller integrates 12V + 12V bootstrapped MOSFET drivers to ensure highest efficiency power conversion. To further help simplify circuit design and reduce the external part count and PCB size, the bootstrap diode is itself built into the device. In order to optimize system performance, the AP3595's gate drive voltage is fully configurable, regulated via a reference input set using an external voltage divider.

By tuning the duty cycle of each channel in response to internal MOSFET on-resistance sensing, the controller ensures phase currents are balanced at all times. A power-saving interface (PSI) enables it to automatically switch between dual and single mode to help reduce losses. With the V_{PSI} pin at greater than 1.2V, the controller enters dual phase mode; at less than 0.4V, single phase mode is selected.

To ensure high-reliability operation at high currents, the AP3595 buck controller features a comprehensive range of built-in protection features that include over-current, input/output under-voltage, over-voltage and over-temperature

protection. An adjustable soft-start feature adds an additional level of circuit security. For further information, visit the Company's website at 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, logistics center, 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>.

###

Company Contact:

Diodes Incorporated
Julie Holland
VP, Worldwide Analog Products
P: 972-987-3900
E: pressinquiries@diodes.com

Investor Relations Contact:

Shelton Group
Leanne K. Sievers
EVP, Investor Relations
P: 949-224-3874
E: lsievers@sheltongroup.com