



Buck Converters from Diodes Incorporated Enable Smarter Power Regulation

Plano, Texas – November 18, 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 series of synchronous buck converters for low-output voltage power regulation in digital TVs, monitors and other high-density, fast changing point-of-load system architectures. Employing adaptive constant on-time (AdCOT) control, the AP65450, AP65452 and AP65552 ensure high DC output accuracy, high efficiency and fast transient response.

For the 4A-rated AP65450 converter, the AdCOT control supports seamless transition between a continuous conduction mode (CCM) at high loads to a discontinuous conduction mode (DCM) at light loads. The 4A AP65452 and 5A AP65552 variants are designed to remain in CCM in order to help achieve better system noise reduction and filtering.

By providing up to 92% efficiency, the converters help simplify compliance with regional low-power consumption regulations, with the added option of automatic light loading to further improve performance. Additionally, their wide 4.5V to 18V operating voltage range is well-suited for 5V, 9V and 12V bus systems.

The devices feature a high switching frequency of 650kHz: fixed for the AP65452 and AP65552 and variable for the AP65450 under low-load conditions. This feature, combined with AdCOT control, allows for the use of fewer and smaller external inductive and capacitive components, thus enabling designers to achieve good output stability while shrinking PCB size. To further save space, the three devices are provided in the compact SO-8EP package.

These buck converters incorporate a wide range of protection features including under-voltage lockout, thermal shutdown and over-current protection, which helps protect downstream components from damage and premature aging. Further information is available 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 two more located in Shanghai, China. In addition, two assembly-test facilities are located in Shanghai; two are located in Chengdu, China, with one in Neuhaus and one in 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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