



*For immediate release*

## **DC-DC Buck Converters from Diodes Incorporated Enable Best-In-Class EMI Performance with Ultra-Low Quiescent Current**

**Plano, TX – January 21, 2019** – Diodes Incorporated (Nasdaq: DIOD), a leading global manufacturer and supplier of high-quality application specific standard products within the broad discrete, logic, analog and mixed-signal semiconductor markets, today announced the availability of the AP63200/AP63201/AP63203/AP63205 2A synchronous DC-DC buck converters, delivering class-leading EMI performance across a range of input and output voltages. These devices are well-suited for a number of applications, including home appliances and industrial electronics, as well as telecommunications, power tools, office equipment and consumer products such as TVs and STBs.

Switching DC-DC converters can typically introduce significant EMI to a design. However, the AP63200/AP63201/AP63203/AP63205 employ a frequency spread spectrum (FSS) technique with a switching frequency jitter of  $\pm 6\%$ , and proprietary gate driver technology to enable the industry's best-in-class EMI performance. This design supports single layer layout and can remove the need for vias to further reduce EMI. Further improvements are achieved through the proprietary gate driver design, which reduces switching node ringing without sacrificing MOSFET turn-on and turn-off times.

The fully integrated devices feature high-side and low-side MOSFETs with very low on-resistance,  $R_{DS(ON)}$ , complemented by Diodes' proprietary gate driver technology and compensation network. By employing pulse frequency modulation (PFM), the AP63200/AP63201/AP63203/AP63205 deliver excellent efficiencies of up to 88% under light-load conditions (5mA output current), and a quiescent current as low as 22 $\mu$ A.

The wide input voltage range of between 3.8V to 32V supports a variable output voltage of between 0.8V to  $V_{IN}$  (AP63200/AP63201), or fixed output voltages of 3.3V (AP63203) or 5V (AP63205). All devices can deliver a maximum continuous output current of 2A. The AP63200/AP63201 devices can also operate as an LDO regulator by employing a duty cycle of 100%, providing a stable output voltage to within 1% of an unregulated input voltage. All of the devices have been designed to withstand input voltage surges of up to 40V for 400ms.

All products are available in the TSOT26 package. Further information is available 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, analog,

and mixed-signal semiconductor markets. Diodes serves the consumer electronics, computing, communications, industrial, and automotive markets. Diodes' products include diodes, rectifiers, transistors, MOSFETs, protection devices, function-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 also has timing, connectivity, switching, and signal integrity solutions for high-speed signals. Diodes' corporate headquarters and Americas' sales office are located in Plano, Texas and Milpitas, California. Design, marketing, and engineering centers are located in Plano; Milpitas; Taipei, Taiwan; Taoyuan City, Taiwan; Zhubei City, Taiwan; Manchester, England; and Neuhaus, Germany. Diodes' wafer fabrication facility is located in Manchester, with an additional facility located in Shanghai, China. Diodes has assembly and test facilities located in Shanghai, Jinan, Chengdu, and Yangzhou, China, as well as in Hong Kong, Neuhaus, and Taipei. Additional engineering, sales, warehouse, and logistics offices are located in Taipei; Hong Kong; Manchester; Shanghai; Shenzhen, China; Seongnam-si, South Korea; Munich, Germany; and Tokyo, Japan, with support offices throughout the world.

Recent news releases, annual reports and SEC filings are available at the Company's website: <http://www.diodes.com>. Written requests may be sent directly to the Company, or they may be e-mailed to: [diodes-fin@diodes.com](mailto:diodes-fin@diodes.com).

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