



*For immediate release*

## **Grade 2 Automotive-Compliant PCIe 4.0 Clocks from Diodes Incorporated Enable Low Power Designs for Connected Driving**

**Plano, TX – February 26, 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 a family of automotive-compliant PCI Express (PCIe) 4.0 clock generators and buffers featuring advanced features for demanding automotive applications such as head units, ECUs, ADAS, navigation, telematics, and infotainment.

The PI6CG182Q, PI6CG184Q, PI6CG188Q (PCIe 4.0 clock generators) and PI6CB184Q (PCIe 4.0 clock buffers) provide differential low-power, high-speed current steering logic (HCSL) outputs with on-chip termination. They have been designed to generate and distribute a reference clock signal for chipsets employing PCIe Gen 4 interfaces. These devices are all qualified to AEC-Q100 Grade 2, with an operating temperature range of -40°C to +105°C, therefore they are suitable for any automotive PCIe application.

Operating at 1.8V and with integrated on-chip termination at every HCSL output, the devices minimize power consumption and remove the need for external resistors; designers would otherwise need to add four resistors per output pair, or up to 32 resistors for an 8-output device, and lose power via the external resistors. Each output also features its own enable pin to further improve power management on outputs that are unused. The devices are based on Diodes Incorporated's proprietary PLL technology, proven in millions of products worldwide. This design includes a number of advanced features including programmable output slew rate and amplitude, and selectable spread-spectrum on differential outputs to help minimize EMI. This can be particularly advantageous when designing for an automotive environment.

These automotive-compliant clocks were developed with the automotive manufacturing environment in mind, so wettable-flank QFN packages have been used to ensure compatibility with automated visual inspection.

The product lineup includes: the PI6CG182Q (clock generator, 2 outputs), the PI6CG184Q (clock generator, 4 outputs), the PI6CG188Q (clock generator, 8 outputs), and the PI6CB184Q (clock buffer, 4 outputs).

The PI6CG182Q is available in the 24-TQFN package (4mm x 4mm), the PI6CG184Q in the 32-TQFN package (5mm x 5mm), the PI6CG188Q in the 48-TQFN package (6mm x 6mm), and the PI6CB184Q in the 32-TQFN package (5mm x 5mm).

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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