



Product news

PCIe Packet Switches from Diodes Incorporated Meet Automotive Demands for Advanced Features

Plano, Texas – November 5, 2019 – Diodes Incorporated (Nasdaq: DIOD) today announced the [PI7C9X2G304EVQ](#) and [PI7C9X2G404EVQ](#) PCIe 2.0 packet switches, offering 3-ports/4-lanes and 4-ports/4-lanes, respectively. The packet switches are automotive-compliant for use in telematics/ADAS, navigation systems, in-vehicle wireless routers, and emerging applications such as V2V and V2X communications.

The parts are designed to provide a simple solution to increase the fan-out of PCIe ports on SoCs, ASSPs, MPUs, and FPGAs, supporting advanced features in the automotive industry. The devices are qualified to AEC-Q100 Grade 2, offer an operating temperature range of -40°C to +105°C, are PPAP capable, and are manufactured in IATF 16949 certified facilities.

Interoperability at the system level is guaranteed through compliance with the PCI-SIG PCIe Rev 2.1 standard. At the component level, pin-compatibility with existing Grade 3 solutions from Diodes Incorporated provides an easy migration path to higher performance for existing designs.

Advanced features include an integrated clock buffer and support for peer-to-peer traffic, delivering greater system performance. The low-power operation is complemented by link power management, including active-state power management L0 and L1, device-state power management D0, D3_{Hot} and D3_{Cold}. Power dissipation in L0 is 300mW (typical), dropping to 35mW in PCI-PM L1.1 D3_{Hot} PM sub-state mode.

Latency for a packet running through the switch without blocking is 150ns, and latency tolerance reporting improves platform power management. While the default mode is cut-through, store and forward modes are also supported. Peer-to-peer traffic is enabled through access control service support.

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, 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, UK; and Neuhaus, Germany. Diodes' wafer fabrication facilities are located in Manchester and Greenock, UK, and 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.

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