For immediate release

Quad Port Expander from Diodes Incorporated Provides BoM Savings and Easier PCB Layout for High-Speed Interfaces

Plano, TX – March 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 the PI7C1401 quad port expander. The PI7C1401 is a cost-effective solution to low-speed signal management and I^2C aggregation in advanced embedded systems using multiple high-speed interfaces. The PI7C1401 is suitable for any application that features multiple high-speed transceivers, including standard SFP (small form-factor pluggable), dual SFP (DSFP) and quad SFP (QSFP), such as baseband units, routers, and switches as found in telecommunications, networking and data centers.

Typically, each transceiver requires a dedicated control channel to a host, which is normally implemented using low-speed signal pins and a low-speed protocol, such as I^2C and others. As systems become more complex they require more transceivers, putting increased pressure on the host controller to support many more I^2C interfaces and other low-speed signal pins.

Using the PI7C1401, four low-speed ports can be aggregated into a single channel and by combining multiple quad port expanders, a host processor can control up to 56 transceivers through a single I^2C/SPI interface. This can significantly lower the pin-count on the host processor or FPGA used to control the high-speed transceivers, as well as ease PCB layout and reduce the overall bill-of-materials (BoM).

The I^2C interface supports 1MHz fast mode and allows up to 14 PI7C1401 devices to share a single interface. The devices automatically configure their respective addresses by daisy-chaining their control pins. A bus speed of up to 33MHz is supported when using SPI mode, which effectively allows an unlimited number of PI7C1401 devices to share a single SPI interface. In addition to port aggregation, the PI7C1401 provides a number of other useful features, including four user-programmable GPIO, along with two outputs dedicated to driving status LEDs.

The PI7C1401 also supports automatic pre-fetching of user-defined critical data from the modules, as well as customizable data-driven interrupts, the ability to burst read/write the I^2C/SPI interfaces, and a broadcast mode that allows all ports to be written to simultaneously. These features greatly increase the efficiency of PI7C1401's port control in highly demanding applications.

The PI7C1401 quad port aggregator also supports separate host-side I/O voltages, from 1.8V to 3.3V. It is available in a 56-ZF (TQFN) package measuring 5mm x 11mm at 0.5mm pitch, allowing it to be surface-mounted to the underside of a PCB and close to the physical interfaces. 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, 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.

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