IDT Extends Leadership in Datacenter and Networking Systems with Launch of Its Latest PCI Express Timing Devices

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New PhiClock™ Clock Generators and Enhanced 9Z High-Performance Clock Buffers are Latest Additions to IDT's Gen5 PCIe-Ready Solutions

SAN JOSE, Calif., April 30, 2018 /PRNewswire/ -- Integrated Device Technology, Inc. (IDT) (NASDAQ: IDTI) is extending its leadership in PCI Express® (PCIe®) solutions with today's introduction of two new Gen4 timing families, the IDT® PhiClock™ clock generator family and the enhanced IDT 9Z family of high-performance clock buffers. Both families offer substantial performance upgrades, providing 50% margin to the PCIe Gen4 clock jitter limit of 0.5ps rms. Initial IDT testing shows both families satisfy upcoming Gen5 PCIe requirements.

"We listened closely to our customers in developing our latest PCIe clock generators and clock buffers, ensuring they meet or exceed customers most stringent performance, power and board space requirements," said Kris Rausch, vice president and general manager of IDT's Timing Products Division. "These latest devices are another example of IDT's long leadership in PCIe timing and are ideal for our customers creating next-generation data center and networking solutions based on PCIe Gen4, including servers, SSDs, NICs, FPGA and GPU-based accelerator cards, and Ethernet and optical modules."

The PhiClock 9FGV100x device family combines space savings, high performance and low power in a single, easy-to-use solution. All PhiClock devices integrate crystal load capacitors and offer an optional integrated crystal to simplify designs and save board space. When configured with HCSL outputs for PCIe applications, PhiClock products integrate the output termination resistors, further reducing board space. Extremely small 3 mm x 3 mm and 4 mm x 4 mm packages complement the integration for maximal space savings. The programmable PhiClock clock generators combine outstanding PCIe Gen4 performance and outstanding Ethernet performance with phase jitter as low as 225 fs rms at 156.25 MHz (12k-20M). Extremely low power consumption (as low as 100 mW at 1.8V) allows placement closer to high-power components, which also reduces board space requirements.

Complementing the PhiClock generators are IDT's new enhanced 9Z clock buffer family. The 9Z buffers offer fanout, 1 MHz and 3 MHz bandwidth zero-delay operating modes, providing flexibility to support the most complex timing trees with a single device. Unlike many existing solutions, whose performance limitations force their use in fanout buffer mode, the 9Z family supports prominent CPU phase jitter requirements in all three operating modes. The extremely low 50 fs rms PCIe Gen4 additive phase jitter of the 9Z clock buffers enables complex implementations requiring cascading while still meeting PCIe Gen4 requirements. These 9Z clock buffers are also ideal for interfacing with IDT's high-performance oscillators when board designs require a wide clock distribution from a single source.

Like the PhiClock devices, these new clock buffers offer savings of up to four resistors per clock output for maximal board savings. Both families also support the upcoming 25G Extended Data Rate Cache Coherency Interconnect for Accelerators (CCIX®) clocking standard.

The PhiClock clock generators and 9Z clock buffers are available production quantities now. More information about these latest IDT PCIe devices is available at idt.com/pcietiming.

About IDT

Integrated Device Technology, Inc. develops system-level solutions that optimize its customers' applications. IDT's market-leading products in RF, high performance timing, memory interface, real-time interconnect, optical interconnect, wireless power, and smart sensors are among the company's broad array of complete mixed-signal solutions for the communications, computing, consumer, automotive and industrial segments. Headquartered in San Jose, Calif., IDT has design, manufacturing, sales facilities and distribution partners throughout the world. IDT stock is traded on the NASDAQ Global Select Stock Market® under the symbol "IDTI." Additional information about IDT can be found at www.IDT.com. Follow IDT on Facebook, LinkedIn, Twitter, and YouTube.

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