



NEWS RELEASE

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PCI-SIG Board of Directors Approve PCI-X 2.0 Specification for High-Bandwidth Local I/O

*PCI-X 266 and PCI-X 533 Offer a Low-Cost and Fully Backward
Compatible Interconnect Solution*

PORTLAND, Ore, July 23, 2002 – The PCI-SIG, the Special Interest Group responsible for PCI, PCI-X and PCI Express* industry-standard I/O technologies, announced today that its board of directors has approved the official public release of the protocol portion of the PCI-X 2.0 specification. The board also approved the posting of the ‘release candidate’ for the electrical portion of the PCI-X 2.0 specification to the PCI-SIG web site. Together, these two specifications provide all of the information that silicon and systems engineers need to begin their PCI-X 266 and PCI-X 533 product designs today. The electrical portion of the PCI-X 2.0 specification is in the final stages of validation to ensure that the specification meets rigorous engineering standards. The PCI-SIG will release the electrical portion upon completion of this validation process in the coming weeks.

The PCI-X 2.0 specification defines two new versions of PCI-X add-in cards: PCI-X 266 and PCI-X 533. The first, PCI-X 266, runs at speeds up to 266 Mega transfers per second, enabling sustainable PCI bandwidth of more than 2.1 Gigabytes/second. PCI-X 533 runs at speeds up to 533 Mega transfers per second enabling bandwidth of more than 4.2 Gigabytes/second. Such throughput rates are more than sufficient to handle current applications while also supporting future high-bandwidth add-in card connections to 10 Gigabit Ethernet, 10 Gigabit Fibre Channel, Serial Attached SCSI, Serial ATA (SATA), InfiniBand, RAID and cluster interconnects for servers and workstations.

“The notion of any card, any slot, anytime has arrived,” said Tony Pierce, PCI-SIG chairman. “The PCI-X 2.0 specification demonstrates the PCI-SIG’s commitment to maintaining backward compatibility, while expanding the capabilities of PCI to meet future requirements. PCI-X 266 and PCI-X 533 offer an easy migration path for designers of high bandwidth applications who require maximum performance within a stable design environment.”

“PCI-X is established as the undisputed high-bandwidth interconnect standard for the server marketplace because it protects both the hardware and software investments already established with PCI,” said Al Yanes, president of the PCI-SIG. “PCI-X 266 and PCI-X 533 boost bandwidth to levels that will support the industry’s fastest add-in card connections and preserve backward compatibility for years to come.”

PCI-X 2.0 Preserves Hardware and Software Compatibility with PCI

PCI-X 2.0 leverages the protocol enhancements used in the widely adopted PCI-X 1.0 specification, such as byte counts and split transactions, enabling maximum operational efficiency with host bridges, PCI-to-PCI bridges and main memory. The PCI-X 2.0 specification also incorporates Error Checking and Correction (ECC™), ensuring end-to-end data integrity that is critical for the server market. Additionally, the bus-per-slot provided with PCI-X 2.0 delivers excellent fault isolation and improved performance guarantees for advanced levels of reliability.

PCI-X 2.0 is also fully backward compatible with previous generations of PCI, which means that motherboard and system designers can immediately deploy products that accommodate existing PCI cards, while supporting present and future low-cost, high-bandwidth PCI-X 2.0

devices. By the same token, PCI-X 2.0 adapter cards will be able to plug into any PCI slot and operate at the maximum speed of that slot. This makes PCI-X 2.0 an ideal solution for corporate customers in the server and networking markets, who place a high priority on maximizing current technology investments.

PCI-X 2.0 Designed for Cost Parity and Easy Upgrade

“The PCI-X 2.0 workgroup maintained a clear focus on the key issues of cost parity with PCI-X 1.0 and the ease of upgrading from an existing PCI or PCI-X design,” said Dwight Riley, PCI-X 2.0 workgroup chairman. “PCI-X 2.0 builds upon all the work and development of the PCI-X 1.0 specification. As a result, PCI-X 266 and PCI-X 533 will be implemented with minimal system redesign, and PCI-X 2.0 compliance ensures that new designs are also compliant with PCI-X 1.0 and Conventional PCI. During the final stage of our electrical validation, the bulletproofing phase, we will ensure that PCI-X 2.0 will support all the worst-case design permutations.”

The PCI-X 2.0 workgroup was formed in October 2000, and comprised a total of 13 PCI-SIG member companies, including Adaptec, Agilent, AMD, Emulex, HP, IBM, Intel, LSI Logic, NEC, PLX, ServerWorks, Sun Microsystems and Tyco Electronics.

Join PCI-SIG to Obtain the PCI-X 2.0 Specification

The new PCI-X 2.0 ‘ratified’ protocol and ‘release candidate’ electrical specifications will be posted to the PCI-SIG web site during the week of July 22nd at www.pcisig.com <http://www.pcisig.com/>. The specification will be available to PCI-SIG members free of charge. If you are not a member, PCI-SIG specifications are available as open industry standards for a fee. Ordering information is available at www.pcisig.com/specifications <<http://www.pcisig.com/specifications>>. For questions on ordering this specification, please contact PCI-SIG Administration at administration@pcisig.com.

** Note to Editors: On July 23rd, the PCI-SIG also announced board approval of the PCI Express specifications in a separate press release. Please see PCI-SIG web site for details.*

About the PCI-SIG

The PCI-SIG is the Special Interest Group that owns and manages PCI specifications as open industry standards. The organization defines and implements new industry standard I/O (Input/Output) specifications as the industry's local I/O needs evolve. The PCI Special Interest Group was formed in 1992, and the organization became a nonprofit corporation, officially named "PCI-SIG" in the year 2000. Currently, more than 780 industry-leading companies are active PCI-SIG members. The PCI-SIG's current directors are employed by the following PCI-SIG member companies: Adaptec, AMD, HP, IBM, Intel, Microsoft, Phoenix Technologies, ServerWorks and TI. For more information about the PCI-SIG, and PCI-SIG membership benefits, contact the PCI-SIG by phone, at (800) 433-5177 (within the United States), or by fax at (503) 297-1090, or visit the PCI-SIG web site at: <http://www.pcisig.com>

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