



## NEWS RELEASE

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## **PCI-SIG Releases New PCI Version 2.3 Local Bus Specification for Migration to Low-Voltage Designs**

*New Version No Longer Supports 5 Volt-Keyed Add-in Cards*

**PORTLAND, OR, – March 20, 2002** – The PCI-SIG (Peripheral Component Interconnect – Special Interest Group) announced today the release of the PCI Local Bus Specification version 2.3 (PCI v2.3). With vast numbers of users adopting battery-powered systems, and with system manufacturers turning to low-power designs, this latest version of the PCI specification supports both 3.3 volt and 5 volt signaling, but no longer supports the 5 volt-keyed add-in card. In addition, this latest version defines a new low profile add-in card form factor for use in small form factor system designs. The PCI v2.3 specification is now available by request via the PCI-SIG website at [www.pcisig.com](http://www.pcisig.com).

The new PCI v2.3 specification is the first major upgrade to “Conventional PCI” since PCI v2.2 was released in December 1998. It is an evolutionary change that makes a significant step in migrating the PCI bus from the original 5 volt signaling to 3.3 volt signaling. Like PCI v2.2, the new specification supports two system board add-in card connectors for both the 3.3 volt and 5 volt signaling environments. However, PCI v2.3 does not support 5

volt-keyed add-in cards, which are now “non-compliant” with the PCI v2.3 specification. PCI v2.3 continues to support the Universal-keyed and 3.3 volt-keyed add-in cards. The Universal card is capable of detecting the signaling environment in use and adapting itself to that environment. By always using 3.3 volt output signals and having 5 volt-tolerant inputs, the Universal card can be plugged into both types of PCI slots (including PCI-X slots). This change is particularly important to adapter card vendors who must adopt PCI v2.3 to remain compliant and compatible with the most current version of the PCI local bus specification.

Support for 5 volt signaling is retained in PCI v2.3 for backward compatibility with 5 volt-keyed add-in cards, but it is expected to be eliminated in future versions of this specification, making PCI v2.3 the last PCI specification with support for 5 volt signaling. This change follows the same path as other recent PCI bus formats, including Mini PCI and PCI-X, which support only 3.3 volt signaling and 3.3 volt-keyed system board connectors.

PCI v2.3 also specifies the low profile form factor for add-in cards, which allows manufacturers to incorporate PCI slots in small form factor designs where traditional full height and short length cards are too tall. PCI v2.3 also includes support for the SMBus interface, which is based upon the System Management Bus Specification Version 2.0. This two-wire serial interface provides capabilities for low-bandwidth system management functions for client and server management technologies (for more information, see SMBus website at [www.smbus.org](http://www.smbus.org)). PCI v2.3 incorporates all ECNs (Engineering Change Notices) and various errata from the previous PCI v.2.2 specification.

According to Roger Tiple, president and chairman of the PCI-SIG, “Present semiconductor technologies have reduced voltage levels to 3.3 volts or less. While 5 volt tolerance on input signals is still desirable today to plug in older PCI cards, sub-3.3 volt signaling and 3.3 volt-tolerant inputs will be the future of PCI and PCI-X compatible devices. Eliminating support for 5 volt-only keyed add-in cards is the first step in the migration to 3.3 volt signaling systems, and ensures that PCI v2.3 compliant add-in cards

will be compatible with the 3.3 volt keyed system board connectors of today and tomorrow.”

### **Join the PCI-SIG to Obtain the new Specification**

The new PCI v2.3 specification is available to PCI-SIG members free of charge and can be downloaded from the PCI-SIG web site at [www.pcisig.com](http://www.pcisig.com). If you are not a member, all PCI-SIG specifications are available as an open industry standard 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 Administration at [administration@pcisig.com](mailto:administration@pcisig.com).

### **About the PCI-SIG**

Formed in June 1992, the PCI-SIG (PCI Special Interest Group) is the industry organization that owns and manages the PCI Local Bus specification as an open industry standard. The organization defines and implements new industry standard I/O (Input/Output) specifications as the industry's local I/O needs evolve. Currently, more than 700 industry-leading companies are active PCI-SIG members. The PCI-SIG's board of directors is composed of the following companies: AMD, Compaq, HP, IBM, Intel, Microsoft, Phoenix Technologies, ServerWorks and TI. For more information about the PCI-SIG, PCI-SIG membership benefits or the next PCI-SIG Developer's Conference, 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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