



PLX Technology, Inc. Corporate Profile

OVERVIEW

PLX Technology, Inc. is a leading global supplier of PCI Express® (PCIe®) and other standard input/output (I/O) interconnect silicon for the communications, server, storage, embedded-control, and consumer industries. Offering the industry's most extensive I/O interconnect product line, in leaded and lead-free packaging, PLX has a solution for every interconnect-design need.

PLX® ExpressLane™ high-performance PCIe 1.x (Gen 1) and PCIe 2.0 (Gen 2) switches and bridges are designed to enable central processing units (CPUs), network processing units, and I/O devices to communicate through PCIe backbones in server, storage, embedded-control, and communications systems. They are aimed at motherboard designs and chassis-based systems, as well as add-in cards.

The PLX FastLane™ PCI and PCI-X bridges, along with the company's PCI I/O Accelerators, enable PLX customers to lay the groundwork for future solutions by offering complementary features and software compatibility. Our extensive product line offers customers a myriad of migratory solutions -- from 32-bit 33/66MHz to 64-bit 33/66MHz to 64-bit 133MHz, and beyond.

In addition to a broad I/O interconnect silicon offering, PLX provides development tool support through our software development kits (SDKs), rapid development kits (RDKs) and third-party tool support through the PLX Partner Program. Through this rich blend of solutions, PLX enables hardware designers and software developers to maximize system I/O, lower development costs, minimize system design risk, and provide faster time to market.



PLX has been developing I/O interconnect devices since its founding in 1986. Broadening its line of such devices, as well as expanding its technology portfolio and market reach, PLX acquired HiNT Corp., a provider of PCI-to-PCI and PCI-X-to-PCI-X bridging devices, and NetChip Technology, a maker of high-performance semiconductors based on PCI and the Universal Serial Bus (USB). This combination of complementary devices further supports PLX's leadership as a single-source supplier of the most extensive line of I/O devices and design support.

PLX is publicly traded (NASDAQ: PLXT) and headquartered in Sunnyvale, Calif., USA. PLX's European operations are based in the United Kingdom, its Asian operations in China, Japan, Korea and Taiwan. PLX customers are also supported through distributors, sales representatives and an on-demand customer-relationship-management system.

THE PLX SOLUTION

The PLX I/O interconnect solutions include 32- and 64-bit PCI I/O Accelerators; PCI-to-PCI and PCI-X-to-PCI-X bridges, PCIe-based switches and bridges, and USB controllers. PLX's RDKs, SDKs and third-party tool support offering through the PLX Partner Program further assists hardware designers and software developers to streamline their product development. In addition, PLX participates in various industry associations to define and lend its expertise to the development of I/O interconnect technology, and address customers' system requirements.

PCI MOMENTUM

PLX I/O Accelerators are based on the PCI standard, the industry's most widely adopted shared-bus architecture. PCI provides the basic interconnect to a broad spectrum



of systems. PLX is committed to delivering advanced yet complementary technology that allows system manufacturers to build upon the PCI standard – PCI, PCI-X and PCIe -- in high-performance, scalable designs for the networking and communications industry.

PLX is an active member of the PCI Special Interest Group (PCI-SIG®) and the Advanced Switching Interconnect Special Interest Group (ASI SIG), the organization that is currently developing the ASI specification. PLX also has chaired and edited the AdvancedTCA™ 3.4 PCI Express initiative of the PCI Industrial Computer Manufacturers Group (PICMG®).

PLX has written dozens of articles for leading industry trade publications on PCIe technology and authored two chapters on that technology for the book *PCI Express System Architecture* published by Mindshare, Inc. Additionally, PLX regularly collaborates with MindShare and other industry leaders to host PCIe architecture courses.

PRODUCTS

ExpressLane PCI Express Gen 1 Bridges, Switches

Since 2001, PLX has championed PCIe technology. By investing in this next-generation serial interconnect early on, PLX was able embark quickly on an aggressive effort to develop PCIe-compliant devices. As a result of this successful effort, PLX has announced the industry's most complete and flexible line of interconnect chips based on PCIe technology, each of which is presently either sampling or in full production. (White papers explaining important features of these products are available at www.plxtech.com/techinfo.)



PEX 8111 PCIe-to-PCI bridging chip is the industry's smallest reverse-bridging chip, enabling board and system designers to easily develop or migrate their standard and small-form-factor legacy PCI products to the PCIe architecture.

PEX 8114 PCIe-to-PCI/PCI-X bridge is the most versatile bridging device in its class, capable of forward, reverse and non-transparent bridging, and features 1-gigabyte-per-second throughput.

PEX 8311, the industry's only bridging device dedicated to upgrading standard local-bus embedded designs and providing a smooth migration path from PCI to PCIe.

PEX 8505, a five-lane, five-port PCIe switch for cost- and space-sensitive consumer and embedded applications, featuring the smallest (15mm x 15mm) package and industry-low power consumption.

PEX 8508, an eight-lane PCIe switch with five highly configurable ports, peer-to-peer switching and data-aggregation capability, enabling a wider range of applications to take advantage of PCIe.

PEX 8509, a low-cost eight-lane, eight-port switch, featuring low power consumption, small footprint and PLX's third-generation PCIe architecture, for control-plane and other embedded applications.

PEX 8512, a high-performance 12-lane switch combining industry-leading features, such as non-transparency, lowest latency, on-chip Hot-Plug ports, and five configurable ports.

PEX 8516, the industry's only 16-lane PCIe switch with four flexible ports, two virtual channels, and non-transparent bridging.

PEX 8517, a five-port, 16-lane switch featuring a streamlined second-generation switching architecture that simplifies migration to PCIe.



PEX 8518, the industry's only five-port, 16-lane PCIe switching device, featuring a cut-through architecture and small size that reduce power and space requirements.

PEX 8524, the most versatile and flexible 24-lane switch, featuring non-transparency and the highest port count for a switch of its lane count.

PEX 8525, a 24-lane, five-port switch featuring PLX's Cut-Thru PCIe architecture and unprecedented low latency.

PEX 8532, a 32-lane PCIe switch providing unprecedented flexibility through up to eight completely configurable ports, on-chip non-transparency, two virtual channels, and peer-to-peer and fan-out capability.

PEX 8533, featuring 32 lanes, six ports and Cut-Thru architecture designed for servers, storage, fan-out applications, and peer-to-peer communications.

PEX 8547, a 48-lane, three-port switch featuring unprecedented latency and optimized for graphics applications

PEX 8548, the industry's only 48-lane, nine-port switch features lowest latency, true peer-to-peer support, and highly configurable ports.

ExpressLane PCI Express Gen 2 Switches

PLX's newest family of switches is based on PCIe Gen 2 technology, featuring throughput of up to 5GT/s (GigaTransfers per second), backward compatibility with PCIe Gen 1 designs, and unmatched flexibility due to its wide array of lane and port counts. The new devices provide the industry's lowest latency and power consumption, along with PLX-only, efficiency-enhancing features: Read Pacing™, Dual Cast™ and Dynamic Buffer Allocation. Additionally, three of the newest ExpressLane switches feature an integrated direct-memory access (DMA) engine, which offloads processors to boost



system performance. The switches provide next-generation interconnect performance to graphics, backplane, server, storage, add-in-card, control-plane, and embedded applications.

PEX 8604 -- four lanes, four ports

PEX 8606 -- six lanes, six ports

PEX 8608 -- eight lanes, eight ports

PEX 8609 -- eight lanes, eight ports, DMA

PEX 8612 -- 12 lanes, three ports

PEX 8614 -- 12 lanes, 12 ports

PEX 8615 -- 12 lanes, 12 ports, DMA

PEX 8616 -- 16 lanes, four ports

PEX 8618 -- 16 lanes, 16 ports

PEX 8619 -- 16 lanes, 16 ports, DMA

PEX 8624 -- 24 lanes, six ports

PEX 8632 -- 32 lanes, 12 ports

PEX 8648 -- 48 lanes, 12 ports

PCI and PCI-X Bridges Bring Increased Performance and Flexibility

The PLX FastLane™ PCI 6000 series has the industry's broadest set of PCI-to-PCI and PCI-X to PCI-X bridges. These bridges allow more devices to be attached to the PCI bus, and provide the ability to include intelligent adapters on a PCI bus. In addition, these bridges allow PCI buses of different speeds to be part of the same subsystem.



The PLX PCI 6000 series provides designers with support ranging from 32-bit, 33MHz to 64-bit, 66MHz and 64-bit, 133MHz PCI-X. Read about our featured product, the PCI 6540.

PCI 6140 provides 32-bit, 33MHz PCI-to-PCI bridging in a 128-pin PQFP package

PCI 6150 is an asynchronous 32-bit, 66MHz PCI-to-PCI bridge in a 208-pin PQFP package

PCI 6152 is a family of three very low power 32-bit PCI-to-PCI bridges ranging from 32-bit, 33MHz to 32-bit, 66MHz

PCI 6154 delivers an asynchronous, 64-bit, 66MHz PCI-to-PCI bridge in a 304-pin BGA package

PCI 6254 is a dual-mode universal PCI-to-PCI bridge with 64-bit, 66MHz bandwidth in a 365-pin BGA package

PCI 6466 is the industry's smallest 64-bit, 66MHz PCI bridge, and features full industrial-temperature (I-Temp) rating

PCI 6520 provides a transparent 64-bit, 133MHz, PCI-X-to-PCI-X bridge in a 380-pin BGA package

PCI 6540 delivers a dual mode 64-bit, 133MHz universal PCI-X-to-PCI-X bridge in a 380-pin BGA package

PCI I/O Accelerator Chips, Bridging Devices

PLX offers standard, off-the-shelf integrated circuits that provide a performance and time-to-market advantage to designers and manufacturers. Based on the PCI standard, PLX I/O Accelerator products range from simple target-only chips to powerful bridging devices that efficiently move data with minimal processing intervention.



PCI 9030 SMARTarget™ I/O Accelerator is a CompactPCI compliant target device, providing a high-performance, flexible solution for migrating designs to 3.3 volt PCI.

PCI 9052 PCI Interface Chip provides a compact, 3-volt PCI bus target (slave) interface for adapter boards, enabling rapid conversion of Industry Standard Architecture (ISA) adapters to the PCI bus.

PCI 9054 I/O Accelerator is a bus-mastering silicon device that enables 32-bit, 33MHz PCI operation in CompactPCI adapters, PCI adapters and embedded systems that incorporate 32-bit, 50MHz Motorola PowerQUICC or generic local bus designs.

PCI 9056 I/O Accelerator is a bus-mastering silicon device that enables 32-bit, 66MHz PCI operation in CompactPCI adapters, PCI adapters and embedded systems that incorporate 32-bit, 66MHz Motorola PowerQUICC or generic local bus designs.

PCI 9080 I/O Accelerator is a bus-mastering silicon device that enables 32-bit, 33MHz PCI operation in CompactPCI adapters, PCI adapters and embedded systems that incorporate 32-bit, 40MHz generic local bus designs.

PCI 9656 I/O Accelerator is a bus-mastering silicon device that enables 64-bit, 66MHz PCI operation in CompactPCI adapters, PCI adapters and embedded systems that incorporate Motorola® PowerQUICC™ processors or generic local bus designs.

USB Controllers

PLX's USB controllers include a family of devices that provide fast I/O connection between computers and consumer-oriented peripherals.

NET2270 is a 16-bit USB 2.0 high-speed programmable peripheral controller is optimized for single or bi-directional data transfer devices.



NET2272 is a 16-bit USB 2.0 peripheral controller with a high-performance local-bus device controller capable of up to 30 independent data streams, bursting DMA up to 480Mbps, and low power management technology.

NET2280 is a high-speed USB 2.0 programmable peripheral controller optimized for data transfer between PCI and USB in peripherals, and serves as the basis of PLX's revolutionary USB Duet™ cabling technology allowing file transfers, docking and other applications through a standard USB cable.

NET2282 is the industry's first PCI-to-USB peripheral controller optimized for converting PCI-based designs to Hi-Speed USB 2.0 products.

DEVELOPMENT TOOL SUPPORT

In addition to extensive experience in I/O interconnect devices, PLX understands its customers' development requirements. PLX provides development tools that streamline the product-design process for hardware manufacturers and software developers. Our array of RDKs and SDKs help bring new and updated designs to production quickly. These tools enable manufacturers to dedicate more of their resources to product designs, not PCI implementation.

Rapid Development Kits

Providing full support for each silicon device, PLX offers a wide range of flexible RDKs that enable a prospective system or board designers to evaluate the PLX solution. The same RDK can allow early prototyping and provide a platform upon which to start software porting activities. Each PLX RDK includes a proven, working hardware platform incorporating the PLX interconnect chip on a sample board; complete set of board schematics, symbols and layout files for hardware design; and an extensive software



support package that includes a graphical utility for access to chip registers, sample drivers and support for leading operating systems.

Software Development Kit

The software development effort for a communication system often is significantly greater than that of the system's hardware development. The comprehensiveness of PLX's development software tools significantly reduces the time and effort software engineers must apply to their projects. Additionally, by offering software compatibility across successive generations of semiconductor devices, system designers and software developers are able to extend the useful life of their software investment. The **PLX SDK-PRO** provides building blocks for both host-side and embedded-side PCI software development. The SDK PRO features built-in support for real-time operating systems (RTOSes) and embedded-side APIs.

Board Support Packages, Monitor Software

To assist further in software development activities, PLX SDKs include device drivers and PLX-specific operating system Board Support Packages (BSPs) that can be used to reduce product delivery schedules. Furthermore, PLX's unique **PLXMon®** software application provides a powerful and flexible Microsoft® (NASDAQ: MSFT) Windows®-based graphical user interface (GUI) debugging facility, which enables easy configuration, modification, testing, and debugging of PCI devices.

PLX Partner Program

Additionally, PLX provides support through the PLX Partner Program. The program combines the expertise of several third-party suppliers to create and market



development tools for new, high-performance communications systems using PLX's PCI interface chips. The PLX Partner Program enables hardware designers and software developers to gain easy access to information about design resources, from a centralized source at PLX. Those resources include information on a wide range of development tools: microprocessors; real-time operating systems; software development tools; reference design boards; and expertise from third-party consultants.

CUSTOMER SUPPORT

PLX also supports its products through the Worldwide Web. New tools, application notes, frequently asked questions, and information updates are added regularly to the PLX Web site (plxtech.com).

INDUSTRY COMMITMENT

As a key participant in various industry standards-setting bodies, PLX contributes to a wide range of organizations. In addition to the PCI SIG and PICMG 3.4 groups, PLX belongs to the HyperTransport Consortium, Intel® Developers Network (IDN) for PCI Express Technology, Personal Computer Memory Card International Association (PCMCIA), and Universal Serial Bus Implementers Forum (USB-IF).

For additional information on PLX, our products or latest developments, please visit our web site.

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