

# PCI 9052

## *32-bit, 33MHz PCI Target I/O Accelerator for 32-bit, 40MHz Generic and ISA Local Bus Designs*

As PCI evolves in today's complex systems, PLX continues to provide market leading high performance 32-bit PCI solutions. In this tradition, PLX offers the PCI 9052 I/O Accelerator. The PCI 9052 brings PLX's industry leading experience in the world of PCI designs to you in a way that is simple and convenient to use. The PCI 9052 is the ideal choice for implementation of your 32-bit, 33MHz PCI bus target (slave) I/O Accelerator designs for you 32-bit 40MHz, Industry Standard Architecture (ISA) local bus, or generic designs.

### *Add Target Functionality with Ease*

The PCI 9052 has the industry's most flexible local bus, which allows for multiple interface options to a wide variety of memory and I/O devices. Combine that with fully tested, PCI r2.1 compliance, and your design risk is virtually zero. The PCI 9052 has a set of advanced features to provide high performance and flexibility in order to simplify your design, such as four programmable GPIOs, local chip select, prefetch read ahead mode, zero wait state bursting, and on-the-fly big/little endian byte conversion.

### *Move your ISA Designs Up to Leading PCI Capabilities with Ease*

The PCI 9052 accelerates I/O data movement on adapter boards, from ISA's nominal bus speed of 8MHz, 5MBytes/second, to high-performance 33MHz, 132Mbytes/second PCI data transfer. The PCI 9052 enables a simple, rapid, low cost conversion of ISA adapters to the PCI. The PCI 9052 is a perfect fit for many networking, telecommunications, imaging, industrial, and storage applications:

- 32-bit, 33MHz PCI operation
- 32-bit, 40MHz local bus operation
- Glueless ISA interface for low cost adapters
- Serial EEPROM interface for loading configuration information, to simplify your switch from ISA designs
- Based on the industry-leading architecture of the PCI 9050, for easy software migration

## **Connectivity**

- 32-bit, 33MHz PCI r2.1 compliant
- Up to 40MHz local bus operation
- ISA and Generic 32-bit, 40MHz local bus designs
- Glueless ISA interface for low cost adapters
- Supports multiplexed and non-multiplexed 8-, 16-, and 32-bit generic local buses
- 5V CMOS in 160-pin PQFP package

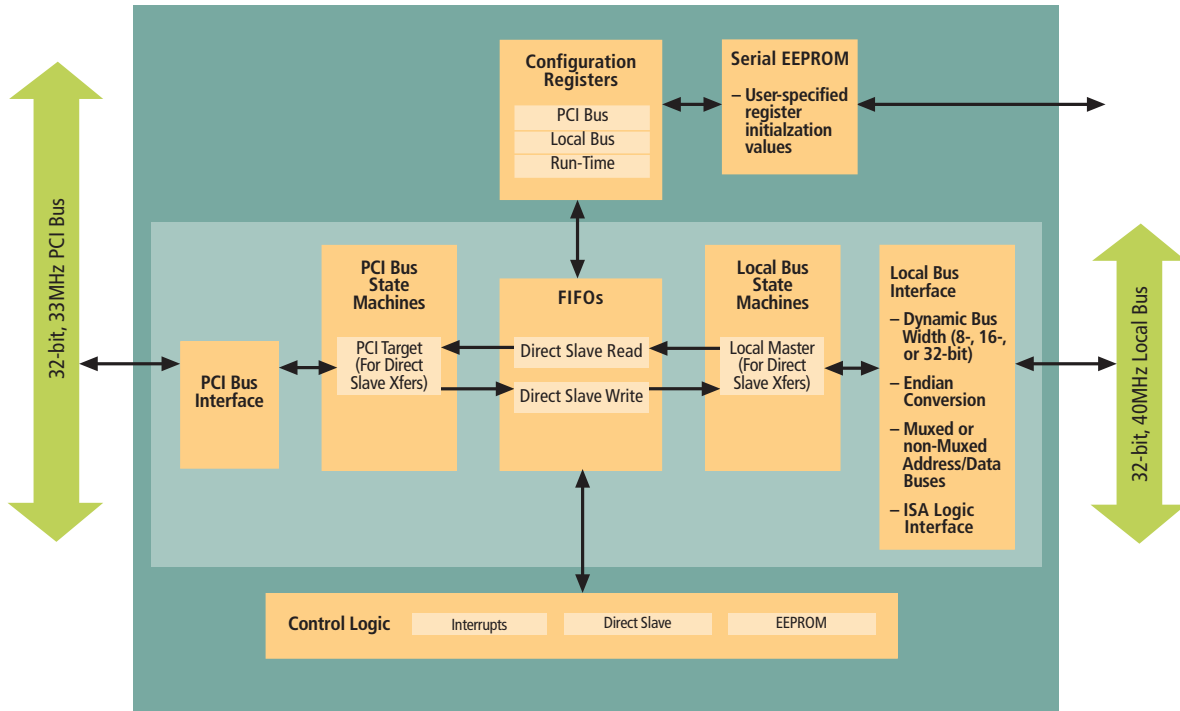
## **Performance**

- Zero wait state burst operation
  - PCI unlimited bursts transfers at up to 132MB/s
- Direct slave data transfers
  - Access 8-, 16-, and 32-bit local bus devices
- Deferred reads, read ahead, posted writes, programmable read prefetch counter
- Move from 8MHz, 5MB/s ISA designs to leading 33MHz, 132MB/s PCI
- Low power consumption

## **Control**

- Supports single cycle reads/writes for 8-, 16-bit memory and I/O-mapped accesses from PCI Bus to ISA bus
- Burst memory-mapped and single I/O-mapped accesses from the PCI-to-local bus
- 32-bit, 16-bit, 8-bit data lines
- Local bus asynchronous to PCI clock
- On-the-fly big/little endian byte conversion
  - Redirects current word or byte lane during 8- or 16-bit local bus operation
- Backwards compatibility with the PCI 9050
- Five local address spaces independent from EEPROM
- Four independently programmable local chip selects
- Up to four programmable GPIOs
- Serial EEPROM interface
  - Used to switch to ISA interface mode





**PCI 9052 Internal Block Diagram**

### Development Tools Support

To minimize risk and lower your product development costs, PLX offers Software Development Kits (SDKs) and Rapid Development Kits (RDKs) that support the PCI 9052. These kits enable designers to quickly bring new designs to production.

PLX recognizes that software often represents the largest investment in development. The PCI 9052 is fully compliant with PLX's SDK-LITE that enables quick and easy development of high performance local processor and host PCI software through standard APIs, PCI debug tools, and sample drivers.

The PCI 9052 design support is provided through RDKs that include a robust PCI development platform, complete with OrCAD schematics, documentation, a PCI 9052 chip sample, and software.



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### Product Ordering Information

Part Number	Description
PCI 9052	32-bit, 33MHz PCI Target I/O Accelerator for Generic and ISA 32-bit, 40MHz Local Bus Designs
PCI 9052RDK-LITE	PCI 9052 Rapid Development Kit with prototyping area for Generic & ISA mode Local Bus designs
SDK-LITE	Windows Host-Side Software Development Kit for PLX I/O Accelerators and I/O Processors

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