

PCI Express® Bridge Chip

XIO2000A



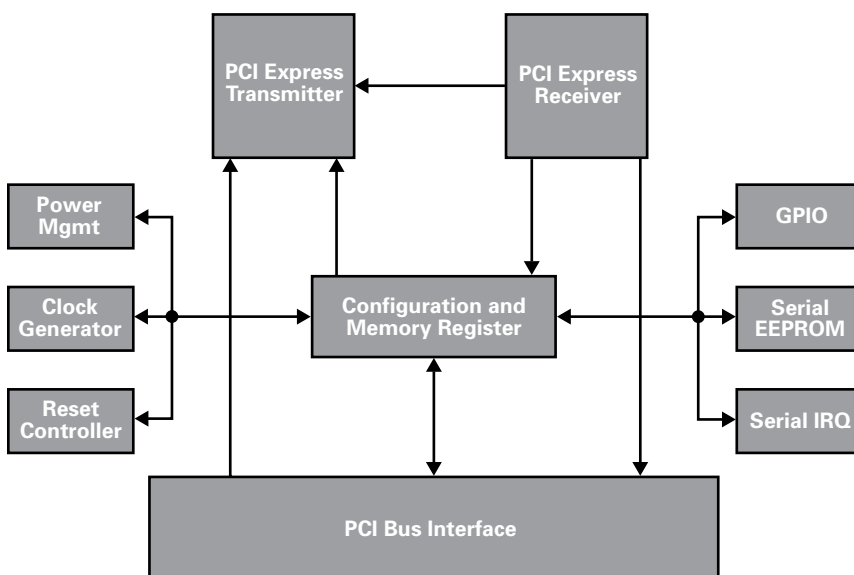
TI's PCI Express Bridge Chip, the XIO2000A, is an industry first. It is designed for seamless migration from the legacy PCI to the PCI Express interface. It bridges an x1 PCI Express bus to a 32-bit, 33/66-MHz PCI bus capable of supporting up to six PCI devices downstream. The XIO2000A fully supports PCI Express rates of 2.5 Gbps. Its architecture supports the PCI 2.3 interface. The chip's design enables PC and I/O add-on card manufacturers to begin transitioning to native PCI Express technology while preserving compatibility with existing PCI system software and firmware.

Key Features

- Compliant with PCI Express to PCI/PCI-X Bridge Specification, Revision 1.0
- Compliant with PCI Express Base Specification, Revision 1.0a
- Compliant with PCI Local Bus Specification, Revision 2.3
- Utilizes 100 MHz differential PCI Express Common Reference Clock or 125 MHz Single-Ended Reference Clock
- Full PCI Local Bus 66 MHz/32-bit Throughput
- Wake/Beacon Event Support
- Robust Architecture to Minimize Latency

Key Benefits

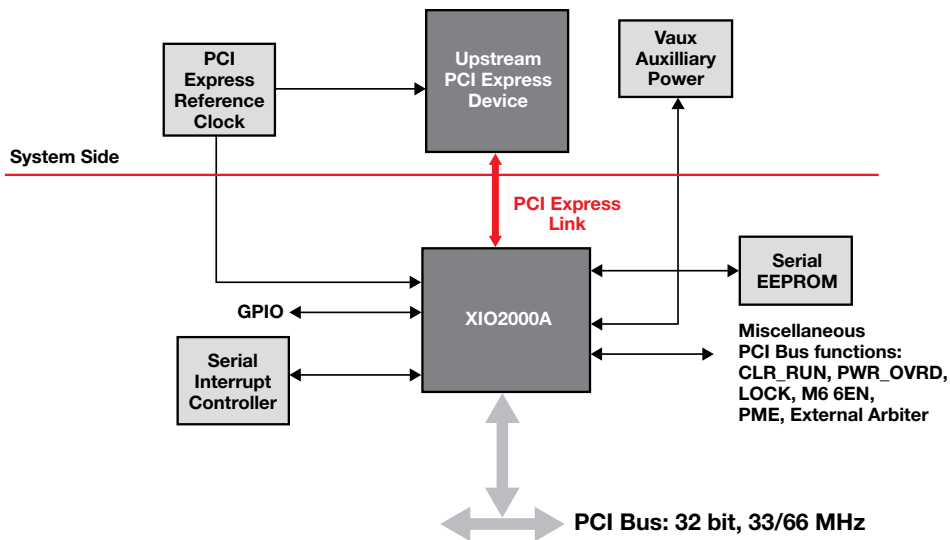
- Proven capability and interoperability with leading PCIe chipsets and plethora of PCI devices
- Built-in adaptive receiver equalizer
 - Improves jitter tolerance thereby reliably increasing PCB trace, or cable length, supported by the XIO2000A
- Seven buffered PCI clock outputs (33-MHz or 66-MHz)
 - Reduces external components and costs and saves valuable board space
- 32-bit secondary PCI bus with 33-MHz or 66-MHz clocking option
 - Customizes to meet the needs of high-performance or low-power applications
- Compact footprint (12mm x 12mm)
 - Allows placement in ExpressCard and mini-PCI cards in limited board space
- Advanced power management features
 - Software-programmable and hardware-autonomous power management features for low-power applications such as ExpressCard



▲ XIO2000A functional block diagram



▲ XIO2000A EVM



Target Markets

The XIO2000A meets the needs of multiple market segments, including:

- Desktop and mobile PC
- Server
- Storage
- PC add-in cards
- Embedded systems

Get samples, datasheets, EVMs and app reports at: www.ti.com/sc/device/XIO2000A

▲ Typical system implementation

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