

PI7C8150B: Asynchronous 32-bit 2-Port PCI-to-PCI Bridge

PRODUCT FEATURES

- 32-bit / 66MHz primary and secondary ports
- Asynchronous mode support
- Compliant with the following specifications:
 - *PCI Local Bus Specification, Revision 2.2*
 - *PCI-to-PCI Bridge Architecture Specification, Revision 1.1*
 - *Advanced Configuration Power Interface (ACPI) Specification*
 - *PCI Power Management Specification, Revision 1.0*
- Concurrent primary and secondary port operation
- Provides internal arbitration for one set of 9 secondary bus masters
 - Programmable 2-level priority arbiter
 - Disable control to allow use of an external arbiter
- Supports posted write buffers in both directions (downstream and upstream)
- Two 128-byte FIFO's for delay transactions
- Two 128-byte FIFO's for posted memory transactions
- Enhanced address decoding
 - 32-bit I/O address range
 - 32-bit memory-mapped I/O address range
 - VGA addressing and VGA palette snooping
 - ISA-aware mode for legacy support in the first 64KB of I/O address range
- IEEE 1149.1 JTAG interface support
- 3.3V core; 3.3V and 5V PCI I/O interface
- Packages
 - 208-pin QFP
 - 256-pin PBGA
- Available in 66MHz and 33MHz
- Intel 21150 compatible

PRODUCT DESCRIPTION

The PI7C8150B is a 2-port PCI-to-PCI Bridge designed to be fully compliant with the *PCI Local Bus Specification, Revision 2.2*. Both the primary and secondary ports are specified to run at 32-bit and up to 66MHz.

The PI7C8150B supports both synchronous and asynchronous bus transactions between devices on the primary bus and the secondary bus. In asynchronous mode, the following frequencies are supported:

PART #	PRIMARY	SECONDARY
PI7C8150B	25MHz to 66MHz	25MHz to 66MHz
PI7C8150B-33	25MHz to 33MHz	25MHz to 33MHz

The *PCI Local Bus Specification* denotes loading restrictions on the PCI bus. The PI7C8150B allows designers to expand the loading capability by adding a second PCI bus. On motherboards, more PCI slots or devices can then be added on this second PCI bus. On add-in cards, more than one device can now reside on the add-in card (*PCI Local Bus Specifications* specify that each add-in card may only have one device because there may only be one connection per PCI signal in the add-in card connector).

ORDERING INFORMATION

PART NUMBER	SPEED	PACKAGE
PI7C8150BMA	66 MHz	208-FQFP
PI7C8150BMA-33	33 MHz	208-FQFP
PI7C8150BND	66 MHz	256-PBGA
PI7C8150BND-33	33 MHz	256-PBGA

