

**FEATURE COMPARISON: PI7C8150A vs. PI7C8150**

The PI7C8150A is an enhanced 32-bit/66MHz PCI-to-PCI Bridge and is fully backward compatible to the PI7C8150. The PI7C8150A has the same pin-out and is offered in the same package and footprint as the PI7C8150. The improved performance is shown below.

**PERFORMANCE COMPARISON: PI7C8150A vs. PI7C8150**

The performance data was measured using an in-house evaluation board slotted into an off-the-shelf motherboard. Fast Ethernet (100Mbit LAN) Cards reside in each of the 4 PCI slots on the secondary bus of the evaluation board. In each comparison, the hardware and software remain constant. The only item changed is the bridge on the evaluation board. Two different sets of hardware were used, and the description of each fixture is listed. In each test setup, a PCI exerciser program is used to generate traffic or write packets from the PCI Fast Ethernet card to memory and then read back from memory to the PCI Fast Ethernet card.

**TEST CASE 1**

Motherboard: Super Micro P3TDLE  
Chipset: ServerWorks Grand Champion  
Processor: Intel 733MHz Pentium III with 133MHz Front Side Bus  
Memory: 256MB PC133 SDRAM  
Video: PCI add-in card on the primary bus  
Other PCI Devices: No other PCI devices active

A Fast Ethernet card running full duplex is slotted in each of the 4 PCI slots on the evaluation board.

Results: Transfer rate measured in Megabits per second

Card Number	PI7C8150A	PI7C8150
LAN Card 1	52 Mb/s	20 Mb/s
LAN Card 2	93 Mb/s	56 Mb/s
LAN Card 3	46 Mb/s	17 Mb/s
LAN Card 4	90 Mb/s	52 Mb/s

**TEST CASE 2**

Motherboard: Tyan S2466  
Chipset: AMD 766DDR  
Processor: AMD Athlon 1.8GHz with 266MHz Front Side Bus  
Memory: 256MB 266DDR SDRAM  
Video: PCI add-in card on the primary bus  
Other PCI Devices: No other PCI devices active

A Fast Ethernet card running full duplex is slotted in each of the 4 PCI slots on the evaluation board.

Results: Transfer rate measured in Megabits per second

Card Number	PI7C8150A	PI7C8150
LAN Card 1	91 Mb/s	56 Mb/s
LAN Card 2	65 Mb/s	18 Mb/s
LAN Card 3	92 Mb/s	57 Mb/s
LAN Card 4	90 Mb/s	51 Mb/s

**TEST CASE 3**

Motherboard: Tyan S2720  
Chipset: Intel E7500DDR  
Processor: Intel Xeon 1.8GHz with 266MHz Front Side Bus  
Memory: 256MB 266DDR SDRAM  
Video: On-board AGP device  
Other PCI Devices: No other PCI devices active

A Fast Ethernet card running full duplex is slotted in each of the 4 PCI slots on the evaluation board.

Results: Transfer rate measured in Megabits per second

Card Number	<b>PI7C8150A</b>	<b>PI7C8150</b>
LAN Card 1	81 Mb/s	14 Mb/s
LAN Card 2	79 Mb/s	11 Mb/s
LAN Card 3	54 Mb/s	9 Mb/s
LAN Card 4	87 Mb/s	30 Mb/s

**TEST CASE 4**

Motherboard: ASUS P4G8X  
Chipset: Intel E7205  
Processor: Intel Pentium 4 1.8GHz with 533/400MHz Front Side Bus  
Memory: 256MB PC2100 DDR  
Video: PCI add-in card  
Other PCI Devices: No other PCI devices active

A Fast Ethernet card running full duplex is slotted in each of the 4 PCI slots on the evaluation board.

Results: Transfer rate measured in Megabits per second

Card Number	<b>PI7C8150A</b>	<b>PI7C8150</b>
LAN Card 1	17 Mb/s	6 Mb/s
LAN Card 2	25 Mb/s	9 Mb/s
LAN Card 3	17 Mb/s	6 Mb/s
LAN Card 4	24 Mb/s	7 Mb/s