

FEATURE COMPARISON: PI7C8152A vs. PI7C8152

The PI7C8152A is an enhanced 32-bit/66MHz PCI-to-PCI Bridge and is fully backward compatible to the PI7C8152. The PI7C8152A has the same pin-out and is offered in the same package and footprint as the PI7C8152. The improved performance is shown below.

PERFORMANCE COMPARISON: PI7C8152A vs. PI7C8152

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: Tyan S2466
Chipset: AMD 766DDR
Processor: AMD Athlon 1.8GHz with 266MHz Front Side Bus
Memory: 256MB 266DDR SDRAM
Video: ATI Radeon 7000 AGP card
Other PCI Devices: No other PCI devices active
OS: Windows 2000

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	PI7C8152A	PI7C8152
LAN Card 1	88 Mb/s	53 Mb/s
LAN Card 2	64 Mb/s	17 Mb/s
LAN Card 3	91 Mb/s	51 Mb/s
LAN Card 4	88 Mb/s	48 Mb/s

TEST CASE 2

Motherboard: Super Micro X5DL8-GG
Chipset: ServerWorks Grand Champion HE
Processor: Intel Xeon 2.8GHz with 533/400MHz Front Side Bus
Memory: 256MB 266DDR SDRAM
Video: On-board ATI Rage XL 8MB
Other PCI Devices: No other PCI devices active
OS: Windows 2000

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	PI7C8152A	PI7C8152
LAN Card 1	75 Mb/s	15 Mb/s
LAN Card 2	93 Mb/s	39 Mb/s
LAN Card 3	94 Mb/s	34 Mb/s
LAN Card 4	95 Mb/s	32 Mb/s

TEST CASE 3

Motherboard: ASUS P4G8X
Chipset: Intel E7205
Processor: Intel Pentium 4 1.8GHz with 533/400MHz Front Side Bus
Memory: 256MB PC2100 DDR
Video: ATI Rage XL PCI
Other PCI Devices: No other PCI devices active
OS: Windows 2000

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	PI7C8152A	PI7C8152
LAN Card 1	16 Mb/s	5 Mb/s
LAN Card 2	22 Mb/s	7 Mb/s
LAN Card 3	15 Mb/s	5 Mb/s
LAN Card 4	21 Mb/s	6 Mb/s

TEST CASE 4

Motherboard: Super Micro P4QH6
Chipset: ServerWorks Grand Champion HE
Processor: Intel Xeon 2.8GHz with 400MHz Front Side Bus
Memory: 256MB ECC DDR
Video: ATI Rage XL
Other PCI Devices: No other PCI devices active
OS: Windows 2000

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	PI7C8152A	PI7C8152
LAN Card 1	73 Mb/s	14 Mb/s
LAN Card 2	92 Mb/s	33 Mb/s
LAN Card 3	93 Mb/s	30 Mb/s
LAN Card 4	93 Mb/s	27 Mb/s