FIC PA-2007 PCI SYSTEM BOARD
BENCHMARKING REPORT

Revision 1.2

Update: 15-MAY-1997

1.0 Introduction

To evaluate the PA-2007 performance and to ensure its compatibility with a complete range of the most popular operating systems and software applications, FIC Motherboard R&D Team conducted a comprehensive suite of benchmark tests on the board in a variety of hardware configurations, including a full selection of Intel Pentium, IBM/Cyrix 6x86 , AMD-K5/K6 , Intel P55C processors as well as EDO and Synchronous DRAM types. The performance of the board running some of the most popular VGA adapter cards was also tested.

In order to demonstrate realistic business application performance, Winstone 97 under Windows 95 was chosen as the primary benchmarking tool for FIC tests. Winstone 97 Version 1.0 was developed by the Ziff-Davis Publishing Company to provide a tool for accurate and realistic measurement of system performance of personal computers running popular business-oriented applications in the Microsoft Windows 95 and Windows NT 4.0 operating system environment.

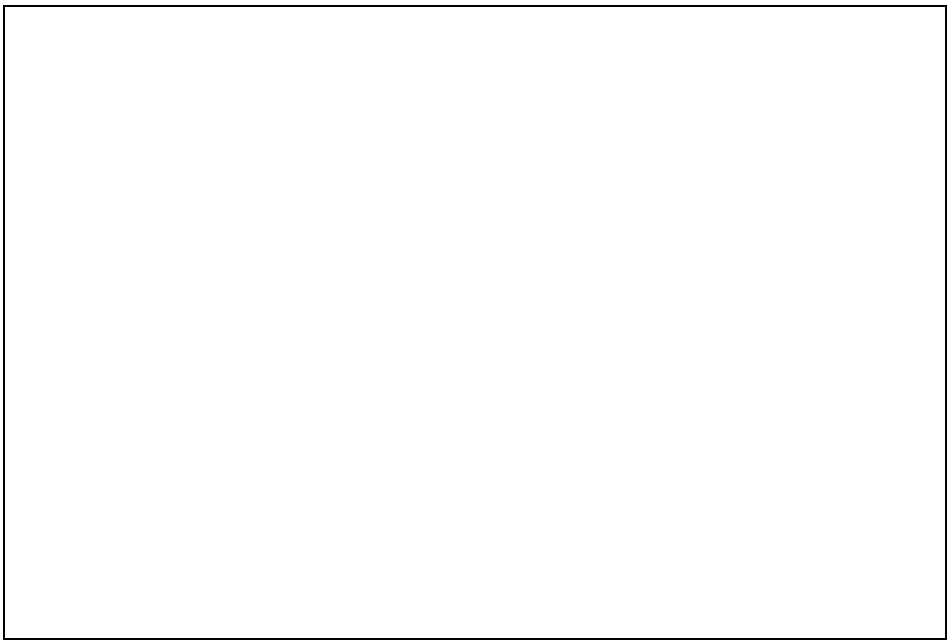
System Tests Configuration :

Main Board	FIC PA-2007 ver: 1.2
System Core Logic	VIA 82C590VP2 (595_3042E + 586A_3036J)
System BIOS	AWARD BIOS Version 6.18J90W
VGA	Matrox Mystique 2MB SGRAM with VGA BIOS Version 1.40
VGA Driver	Matrox Mystique Windows 95 Driver Version 3.41
	Matrox Mystique Windows NT 4.0 Driver Version 3.06
IDE Driver	VIA VT82C580VP PCI Bus Master IDE Driver V1.07
IDE HDD	IBM 6.4GB Ultra DMA33 IDE DHEA-36480
Operating System	Microsoft Windows 95 4.00.950b (OSR2)
	Microsoft Windows NT 4.0 (build:1381)+SP#3

2.0 Processor Benchmarks Performance Summary

A) Intel Pentium Processor Performance

The chart below illustrates the Winstone 97 under Windows 95 performance processor benchmark with the PA-2007 using different speed Intel Pentium processors. The following is a sample of the results using 512KB Pipeline Burst SRAM, 32MB SDRAM, with a Matrox Mystique, 2MB SGRAM PCI VGA card in 1024 x 768 x 256 colors, resolution refresh rate of 75Hz, small font.



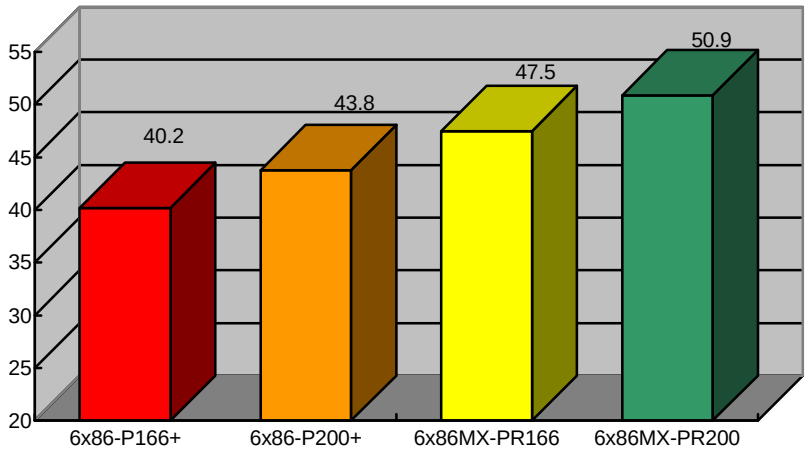
The table below provides more detailed benchmark testing data about the PA-2007 using different speed Intel Pentium processors. The board was configured with 512KB Pipeline Burst SRAM and 32MB SDRAM.

Benchmarks	Weighted Suite	Intel P54C 200MHz	Intel P55C 200MHz	Intel P55C 233MHz
Winstone 97	Business Winstone 97	41.3	45.9	48.9
	High End Winstone 97	18.0	20.8	21.4
Winbench 97	Business Disk WinMark 97	1250	1330	1350
	High End Disk Winmark97	4400	4790	4920
	CPUmark 16	356	409	452
	CPUmark 32	344	399	436
	Business Graphics WinMark 97	65.2	91.5	99.9
	High End Graphics WinMark 97	30.3	40.1	43.5

B) Cyrix 6x86 / 6x86MX Processor Performance

The chart below illustrates the Winstone 97 under Windows 95 performance processor benchmark with the PA-2007 using different speed Cyrix/IBM processors. The board was configured with 512KB Pipeline Burst SRAM and 32MB SDRAM.

PA-2007 Winstone 97 Cyrix/IBM
Performance Comparison Chart



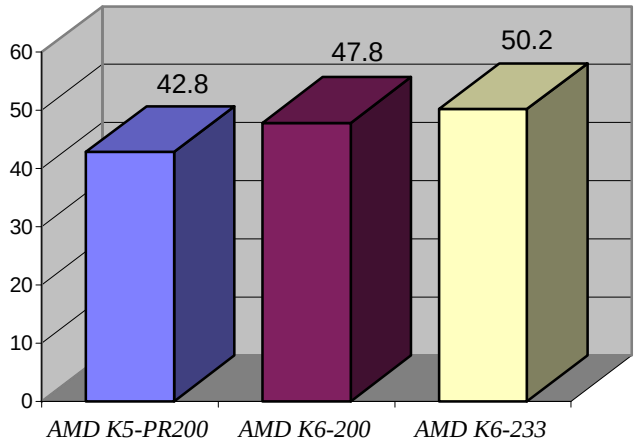
This table provides a detailed summary of PA-2007 benchmark performance using different speed Cyrix/IBM 6x86 and 6x86MX processors. The board was configured with 512KB Pipeline Burst SRAM and 32MB SDRAM.

Benchmarks	Weighted Suite	Cryix/IBM 6x86L P166+	Cryix/IBM 6x86L P200+	Cryix/IBM 6x86MX PR166	Cryix/IBM 6x86MX PR200
Winstone 97	Business Winstone 97	40.2	43.8	47.5	50.9
	High End Winstone 97	16.1	16.9	18.6	20.4
Winbench 97	Business Disk WinMark 97	1240	1320	1350	1410
	High End Disk Winmark97	4400	5140	5340	5310
	CPUmark 16	311	359	366	410
	CPUmark 32	311	369	381	444
	Business Graphics WinMark 97	67.7	74.5	79.0	105
	High End Graphics WinMark 97	30.1	32.6	38.7	49.9

C) AMD-K5/K6 Processor Performance

The chart below illustrates the Winstone 97 under Windows 95 performance processor benchmark with the PA-2007 using different speed AMD-K5/K6 processors. The board was configured with 512KB Pipeline Burst SRAM and 32MB SDRAM.

PA-2007 Winstone 97 Pentium Performance Comparison Chart

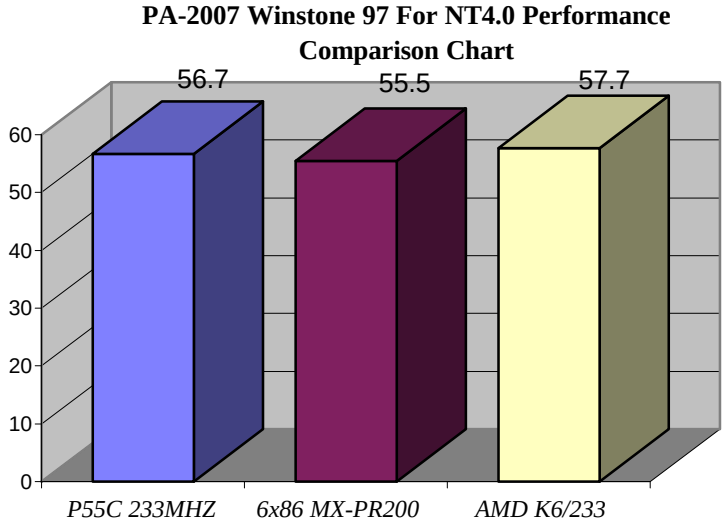


This table summarizes the processor benchmark performance of the PA-2007 using different speed AMD-K5/K6 processors. The board was configured with 512KB Pipeline Burst SRAM and 32MB SDRAM.

Benchmarks	Weighted Suite	AMD K5 PR-200	AMD K6/200	AMD K6/233
Winstone 97	Business Winstone 97	44.2	47.8	51.8
	High End Winstone 97	18.9	20.4	21.7
Winbench 97	Business Disk WinMark 97	1340	1060	1270
	High End Disk Winmark97	3080	3420	5110
	CPUmark 16	310	407	445
	CPUmark 32	340	507	511
	Business Graphics WinMark 97	85.2	91.2	101
	High End Graphics WinMark 97	39.9	41.0	45.6

3.0 Benchmarks Performance for Windows NT 4.0 :

The chart below illustrates the Winstone 97 under Windows NT 4.0 performance processor benchmark with the PA-2007 using Intel P55C-233MHZ , Cyrix MX-PR200 and AMD-K6 233MHZ processors. The board was configured with 512KB Pipeline Burst SRAM and 32MB SDRAM , with Matrox Mystique 2MB SGRAM VGA card in 1024 x 768 x 256 color, resolution refresh rate of 75HZ,small font.



This table summarizes the processor benchmark performance of the PA-2007 . The board was configured with 512KB Pipeline Burst SRAM and 32MB SDRAM.

Benchmarks	Weighted Suite	Intel P55C 233MHz	Cyrix 6x86 MX-PR200	AMD K6/233
Winstone 97	Business Winstone 97	56.7	55.5	57.7
	High End Winstone 97	22.1	18	19.6
Winbench 97	Business Disk WinMark 97	1010	987	1000
	High End Disk Winmark97	2750	2920	2640
	CPUmark 16	445	384	440
	CPUmark 32	463	424	549
	Business Graphics WinMark 97	72.6	70.8	75.4
	High End Graphics WinMark 97	34.9	36.7	39