

EXHIBIT 18

PC Processors and Chip Sets

Updated Edition 1Q2005

Market Strategy and Forecast Report

By Dean McCarron

A technical/market study
published by
Mercury Research, Inc.

LICENSED COPY
FOR INTERNAL USE ONLY

AMD

© Copyright 2005 by Mercury Research, Inc , All rights reserved
First Edition
First Printing, January 2005

This is a site license version of a copyright report. It may be reproduced *for internal company use only*. For additional information on restrictions associated with the use of this material, please refer to the Mercury Research License Agreement on the preceding page.

Mercury Research
P.O. Box 73
Cave Creek, AZ 85327
(480) 922-9364
FAX: (650) 989-6805
service@mercuryresearch.com

Throughout this report, trademark names are used. Rather than place a trademark symbol at every occurrence, we hereby state that we are using the names only in an editorial fashion with no intention of infringement on the trademark.

The information provided in this report has been carefully checked and is believed to be accurate; however, no responsibility is assumed for its use, nor for any infringement of patents or other rights of third parties resulting from its use. No license is granted under any patents, trademarks, or other rights. Dependent upon how small the acceptable margin for error is, every figure in this report may be incorrect. There is no spoon.

Table of Contents

1.	Market and Revision Summary	1-1
1.1.	Market Summary	1-1
1.1.1.	Fourth Quarter Recap	1-3
1.1.2.	2004 Market Summary	1-3
1.1.3.	System Logic Chip Set Summary	1-4
1.2.	Revision Summary	1-9
1.2.1.	What's Changed	1-9
1.2.1.1.	Minor Revisions	1-9
1.2.1.2.	Major Revisions [2004-Q1]	1-11
1.2.1.3.	Major Revisions [2003-Q2]	1-11
	1.2.1.3.1. Server Product Accounting	1-12
	1.2.1.3.2. IAG Revenue Accounting	1-13
1.3.	Forecast Assumptions	1-14
2.	PC Processor Technology	2-1
2.1.	Processor Operation and Design	2-1
2.1.1.	Basic Processor Operation	2-2
2.1.2.	Processor Implementation Fundamentals for PC Design	2-3
2.1.2.1.	Processor-Based Performance Design Features	2-5
	2.1.2.1.1. Pipelined Design	2-5
	2.1.2.1.2. Latency and Throughput	2-6
	2.1.2.1.3. Pipeline Hazards: Data Dependency and Branches	2-6
2.1.1.2.	Pipeline Enhancements	2-7
	2.1.1.1.1. Branch Prediction and Speculative Execution	2-8
	2.1.1.1.2. Out-Of-Order Execution	2-9
	2.1.1.1.3. Data Dependency Removal	2-9
	2.1.1.1.4. Superscalar Design	2-10
2.1.1.3.	System-Oriented Performance Design Features	2-12
	2.1.1.3.1. On-Chip Cache	2-12
	2.1.1.3.2. Cache Size	2-13
	2.1.1.3.3. On-Chip Cache Organization	2-14
	2.1.1.3.4. Cache Write Policy and Write Buffers	2-14
	2.1.1.3.5. Write-Through Cache	2-14
	2.1.1.3.6. Write Buffers	2-15
	2.1.1.3.7. Write-Back Cache	2-15
	2.1.1.3.8. Bus Interfaces	2-16
	2.1.1.3.9. Bus Width and History	2-16
	2.1.1.3.10. Bus Protocol and Transfer Types	2-18
	2.1.1.3.11. Bus Speed	2-19
	2.1.1.3.12. Clock Doubling and More -- Differential Processor/Bus Clocks	2-20

PC Processors and Chip Sets

		2.1.1.3.13. Multimedia or Application-Specific Instruction Set Extensions	2-21
2.2.	Software-Based Performance Design Features		2-24
	2.2.1. Compiler Technology and Compilation-Based Performance		2-24
	2.2.2. Emulation Technology		2-25
2.3.	Manufacturing Technology		2-27
3.	PC Processor Competitive Analysis		3-1
3.1.	X86 Market Share		3-1
	3.1.1. X86 Market Share Overview		3-1
	3.1.2. Segment Share		3-5
	3.1.2.1. Server Segment Share		3-5
	3.1.2.2. Desktop Segment Share		3-7
	3.1.2.3. Mobile Segment Share		3-9
3.2.	Comparing Competitive Processors		3-11
3.3.	Processor Manufacturer Profiles		3-12
	3.3.1. Leading X86 Suppliers		3-12
	3.3.1.1. Intel Corp		3-13
	3.3.1.1.1. Financials		3-13
	3.3.1.1.2. Product Offerings		3-14
	3.3.1.1.3. R&D Roadmap		3-16
	3.3.1.1.4. Market Share		3-18
	3.3.1.1.5. Manufacturing		3-18
	3.3.1.1.6. Product Design and Manufacturing Capacity		3-19
	3.1.1.1.7. Major Customers		3-20
	3.1.1.1.8. Legal Status		3-21
	3.1.1.1.9. Dollar, Unit, and Selling Price History and Forecast		3-25
	3.1.1.1.10. Intel Product Segment Summary		3-29
	3.1.1.1.11. Itanium		3-33
	3.1.1.1.12. Pentium 4 Xeon MP (Server/Workstation)		3-37
	3.1.1.1.13. Pentium 4 Xeon (Server/Workstation)		3-41
	3.1.1.1.14. Pentium 4 (Performance Desktop)		3-45
	3.1.1.1.15. "NetBurst Celeron" (Basic Desktop PC)		3-52
	3.1.1.1.16. Classic Celeron (Basic Desktop PC/XBox)		3-56
	3.1.1.1.17. Pentium M (Performance Mobile)		3-60
	3.1.1.1.18. Pentium 4 M (Performance Mobile)		3-67
	3.1.1.1.19. Pentium 4 P (Transportable/Portability Mobile)		3-71
	3.1.1.1.20. "Celeron M" (Value Mobile)		3-75
	3.1.1.1.21. "Celeron P" (Transportable/Portability Celeron)		3-79
	3.1.1.1.22. "NetBurst Celeron" Mobile (Value Mobile)		3-83
	3.3.1.2. Advanced Micro Devices, Inc.		3-84
	3.3.1.2.1. Financials		3-84
	3.3.1.2.2. Product Offerings		3-85

PC Processors and Chip Sets

3.3.1.2.3.	R&D Roadmap	3-87
3.3.1.2.4.	Market Share	3-88
3.3.1.2.5.	Manufacturing	3-89
3.3.1.2.6.	Product Design and Manufacturing Capacity	3-89
3.3.1.2.7.	Major Customers	3-91
3.3.1.2.8.	Legal Status	3-92
3.3.1.2.9.	Dollar, Unit, and Selling Price History and Forecast	3-93
3.3.1.2.10.	Product Summary	3-97
3.3.1.2.11.	Opteron (AMD64 Server)	3-100
3.3.1.2.12.	Athlon MP (32-bit Server/Workstation)	3-104
3.3.1.2.13.	Athlon 64 (AMD64 Performance Desktop)	3-108
3.3.1.2.14.	Athlon XP (32-bit Performance Desktop)	3-112
3.3.1.2.15.	Sempron (Value Desktop)	3-116
3.3.1.2.16.	Mobile Athlon 64 (AMD64 Performance Mobile)	3-120
3.3.1.2.17.	Mobile Athlon XP (32-bit Performance Mobile)	3-124
3.3.1.2.18.	Mobile Sempron (Value Mobile)	3-128
3.3.1.3.	VIA Technologies	3-132
3.3.1.3.1.	Summary	3-132
3.3.1.3.2.	Product Offerings	3-133
3.3.1.3.3.	R&D Roadmap	3-133
3.3.1.3.4.	Market Share	3-134
3.3.1.3.5.	Manufacturing	3-134
3.3.1.3.6.	Major Customers	3-135
3.3.1.3.7.	Legal Status	3-135
3.3.1.3.8.	Dollar, Unit, and Selling Price History and Forecast	3-137
3.3.1.3.9.	Eden (32-bit Low Power Desktop)	3-141
3.3.1.3.10.	C3/C7 (32-bit Desktop)	3-145
3.3.1.4.	Transmeta Corp.	3-149
3.3.1.4.1.	Summary	3-149
3.3.1.4.2.	Product Offerings	3-150
3.3.1.4.3.	Dollar, Unit and Price History and Forecast	3-152
3.3.1.4.4.	Multimedia Sixth-Generation Products: Crusoe 5X00	3-156
3.3.1.	Other X86 Suppliers	3-159
3.3.1.4.	ALI (Acer Labs Inc.)	3-160
3.3.1.5.	IBM Microelectronics	3-160
3.3.1.6.	Integrated Device Technology (IDT)	3-160
3.3.1.7.	International Meta Systems (IMS)	3-160
3.3.1.8.	National Semiconductor	3-161
3.3.1.9.	NexGen	3-161
3.3.1.10.	Rise Technology	3-161

PC Processors and Chip Sets

3.3.1.11.	Silicon Integrated Systems (SIS)	3-162
3.3.1.12.	ST Microelectronics (SGS-Thomson)	3-162
3.3.1.13.	Texas Instruments	3-162
3.3.1.14.	UMC	3-162
3.3.2.	RISC Processors	3-164
3.3.2.4.	PowerPC (IBM/Motorola)	3-164
3.3.2.4.1.	Product Offerings	3-164
3.3.2.4.2.	R&D Roadmap	3-165
3.3.2.4.3.	Unit Shipments History and Forecast	3-166
4.	PC Processor Market Trends	4-1
4.1.	Market Overview	4-1
4.1.1.	Geographical Sales, 2004	4-3
4.1.2.	Review and Forecast, 2003-2009	4-4
4.1.2.1.	Seventh-Generation x86 Processors	4-6
4.1.2.2.	Sixth-Generation Plus Multimedia x86 Processors	4-8
4.2.	Quarterly Forecast	4-10
4.2.1.	Overview Forecast by Family	4-11
4.2.1.1.	Sixth-Generation Plus Multimedia x86 Processors	4-13
4.2.2.	Overview Forecast by Market Segment	4-17
4.2.2.1.	Server/Workstation Processors	4-19
4.2.2.2.	Performance Desktop Processors	4-21
4.2.2.3.	Basic Desktop Processors	4-24
4.2.2.4.	Performance Mobile Processors	4-27
4.2.2.5.	Basic Mobile Processors	4-30
4.3.	Special Forecast Considerations	4-33
4.3.1.	Component Dependencies	4-33
4.3.2.	Fab Capacity	4-33
5.	Chip Set Technology	5-1
5.1.	Technology and Architecture	5-2
5.2.	Support Peripherals	5-3
5.2.1.	8237 DMA Controller and 74LS612 Memory Mapper	5-4
5.2.1.1.	DMA Operation and Use	5-4
5.2.1.2.	Memory Mapper Function	5-4
5.2.1.3.	Type "F" DMA - Extending the 8237 Legacy	5-5
5.2.1.4.	Distributed DMA	5-6
5.2.2.	8259 Interrupt Controller	5-7
5.2.2.1.	Interrupt Steering	5-7
5.2.2.2.	Expansion beyond the 8259 legacy - APIC	5-7
5.2.3.	8254 Timer Counter, 8255 Interface	5-8
5.2.4.	Clock Generation	5-9
5.2.5.	Bus Control	5-9
5.2.6.	Real-Time Clock	5-9
5.2.7.	Peripheral I/O Address Decode	5-9

PC Processors and Chip Sets

5.3.	Memory Control	5-10
5.3.1.	Memory Data Path	5-10
5.3.1.1.	Cache Controller	5-11
5.3.1.1.1.	Cache Memory: Size, Speed and Tag Requirements	5-11
5.3.1.1.2.	Direct Mapped v. Set Associative	5-12
5.3.1.1.3.	Burst Mode Performance	5-12
5.3.1.1.4.	Burst Order	5-13
5.3.1.1.5.	Write Policy: Write-Through v. Write-Back	5-14
5.3.1.1.6.	Non-Cacheable Region Programming	5-14
5.3.1.2.	Main Memory Controller	5-15
5.3.1.2.1.	Page-Mode DRAM Control	5-15
5.3.1.2.2.	Extended-Data Output (EDO) DRAM	5-16
5.3.1.2.3.	SDRAM	5-17
5.3.1.2.4.	SDRAM Memory Operation	5-18
5.3.1.2.5.	Direct Rambus DRAM (DRDRAM) Implementations	5-19
5.3.2.	Unified/Shared Memory Architecture	5-20
5.3.2.1.	Implementation of UMA	5-20
5.4.	Bus Interfaces	5-22
5.4.1.	Internal Expansion Busses	5-22
5.4.1.1.	Peripheral Component Interconnect (PCI)	5-22
5.4.1.1.1.	Accelerated Graphics Port (AGP)	5-23
5.4.1.2.	ISA	5-24
5.4.1.3.	Auxiliary Buses	5-25
5.4.1.3.1.	Universal Serial Bus (USB)	5-25
5.4.1.3.2.	1394	5-25
5.4.2.	IDE and ATA: Extending I/O Integration	5-26
5.4.2.1.	Enhanced IDE/Fast AT Attachment	5-26
5.4.2.1.1.	AT Attachment Packet Interface (ATAPI)	5-26
5.4.2.1.2.	Disk Size Limitations	5-27
5.4.2.1.3.	IDE Modes	5-27
5.4.2.2.	Bus Master IDE	5-27
5.4.3.	Power Management	5-27
5.4.3.1.	Thermal Management	5-28
6.	Chip Set Competitive Analysis	6-1
6.1.	Fourth Quarter 2004 Chip Set Market Share	6-2
6.1.1.	Fourth Quarter 2004 Total Chip Set Market Share	6-4
6.1.2.	Fourth Quarter 2004 P4 Bus Chip Set Market Share	6-5
6.1.3.	Fourth Quarter 2004 EV6 Bus (AMD) Chip Set Market Share	6-6
6.1.4.	Fourth Quarter 2004 Opteron/Athlon 64 HT Bus Chip Set Market Share	6-7
6.1.5.	Fourth Quarter 2004 P6 Bus Chip Set Market Share	6-8
6.2.	2004 Chip Set Market Share	6-9
6.2.1.	2004 Total Chip Set Market Share	6-11

PC Processors and Chip Sets

6.2.2.	2004 P4 Bus Chip Set Market Share	6-13
6.2.3.	2004 P6 Bus Chip Set Market Share	6-14
6.2.4.	2004 HT Bus (AMD 64 Bit) Chip Set Market Share	6-15
6.2.5.	2004 EV6 Bus (AMD) Chip Set Market Share	6-16
6.3.	Chip Set Company Profiles	6-17
6.3.1.	Leading Chip Set Manufacturers	6-18
6.3.1.1.	Intel Corp.	6-18
6.3.1.1.1.	Company Sales	6-21
6.3.1.1.2.	Product Profile and Positioning	6-21
6.3.1.1.3.	Major Customers	6-25
6.3.1.2.	Silicon Integrated Systems (SIS).....	6-27
6.3.1.2.1.	Company Sales	6-31
6.3.1.2.2.	Products, Profiles and Positioning	6-32
6.3.1.2.3.	Major Customers	6-36
6.3.1.3.	VIA Technologies	6-37
6.3.1.3.1.	Company Sales	6-41
6.3.1.3.2.	Products, Profiles and Positioning	6-42
6.3.1.3.3.	Major Customers	6-45
6.3.2.	Smaller Chip Set Manufacturers	6-47
6.3.2.1.	ATI Technologies	6-48
6.3.2.2.	AMD	6-51
6.3.2.3.	Nvidia	6-52
6.3.2.4.	ULi/ALI (formerly Acer Labs, Inc.)	6-55
6.3.2.4.1.	Company Sales	6-57
6.3.2.4.2.	Products, Profiles and Positioning	6-57
6.3.2.5.	Micron	6-58
6.3.2.6.	Broadcom/ServerWorks (Prev. RCC/Reliance Computer)	6-59
6.3.2.7.	SMSC	6-61
6.3.2.8.	Trident Microsystems	6-63
6.3.3.	Historical Chip Set Manufacturers	6-64
7.	Chip Set Market Trends	7-1
7.1.	PC System Logic Market Forecast by Chip Set Type	7-1
7.1.1.	Dollar Sales Forecast by Type	7-2
7.1.2.	Unit Sales by Type	7-4
7.1.3.	Quarterly Unit Sales by Type	7-6
7.1.4.	Average Selling Price by Type	7-8
7.1.5.	Integrated Chip Set Unit Forecast	7-10
7.2.	Chip Set Market Forecast by I/O Bus Supported	7-12
7.3.	Chip Set Market Forecast by System Application	7-14

3. PC Processor Competitive Analysis

3.1. X86 Market Share

3.1.1. X86 Market Share Overview

The x86 PC processor market is dominated by two players, Intel and AMD. Two additional players, VIA Technologies and Transmeta, also ship x86 PC processors, but collectively they control less than two percent of the market.

In the fourth quarter of 2004 the overall PC processor market increased 13.1 percent compared to the third quarter. This is far better than the seasonal average of the previous five years, which is a 8.3 percent increase for this quarter. All segments were up strongly, with mobile and server products eclipsing desktop processors

Intel's fourth quarter shipments increased 13.4 percent from the third quarter, while AMD saw a 17.4 percent gain. VIA unfortunately had a poor showing after last quarter's sharp upturn, with a 35 percent decline in shipments.

Intel's share increased two-tenths of a point in the fourth quarter of 2004, reaching 82.2 percent, up compared to third quarter share of 82.0 percent. Removing X-box units from the figures gives Intel a share of 82.0 percent, up four-tenths of a point compared to third quarter X-box exclusive share of 81.6 percent. These gains were at the expense of VIA, not AMD, though the company did regain some mobile segment share lost to AMD last quarter.

For 2004, our preliminary estimate for Intel's share is 82.5 percent, down three-tenths of a point from 2003's 82.8 percent.

PC Processors and Chip Sets

AMD's share increased six-tenths of a point in the fourth quarter of 2004, reaching 16.6 percent, up compared to third quarter share of 16.0 percent. Excluding Intel's X-box units from the calculations results in AMD's share being 16.7 percent, up five-tenths of a point compared to third quarter X-box exclusive share of 16.3 percent. AMD's shipments were up strongly, however it was very apparent that the gains came primarily in the value desktop segment from its Sempron processor, shipments of which more than doubled. Some additional gains came from the server and performance desktop segments. Like Intel, the overall share gain was due primarily to VIA's decline, but with stronger growth than Intel, AMD still gained more share than Intel.

For all of 2004, preliminary estimates put AMD's share at 15.8 percent, up three tenths from 2003's 15.5 percent.

VIA's share declined eight tenths of a point in the fourth quarter of 2004, reaching 1.1 percent, down compared to third quarter share of 1.9 percent.

PC Processor Competitive Analysis

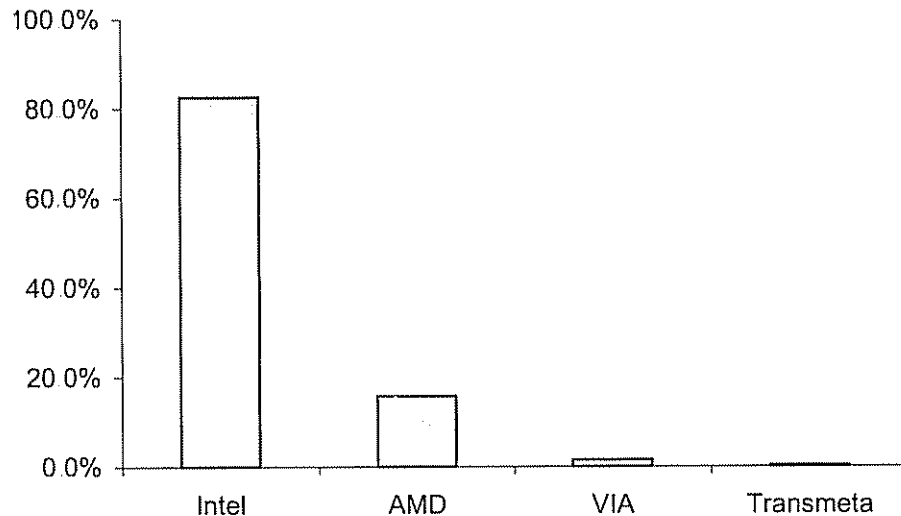


Figure 3-1: Market share (units) for x86 microprocessor sales in 2004
(Source: Mercury Research)

Company	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Intel	31,165	41,623	50,375	65,272	82,994	92,032	112,149	130,985	119,364	140,124	155,582	165,310
AMD	8,881	9,190	9,944	9,383	7,123	13,630	18,566	26,676	30,645	25,007	29,041	31,584
VIA	1,180	2,313	2,861	1,513	3,443	4,924	5,105	1,541	1,384	2,087	2,795	2,910
Transmeta	0	0	0	0	0	0	0	120	331	381	412	496
IDT	0	0	0	0	22	683	517	0	0	0	0	0
Rise Technology	0	0	0	0	0	6	107	0	0	0	0	0
SGS-Thomson	0	0	792	1,367	1,071	195	15	0	0	0	0	0
IBM	0	2,653	2,705	2,063	2,612	3,196	0	0	0	0	0	0
TI	0	1,185	3,542	2,253	335	0	0	0	0	0	0	0
Others	1,360	287	780	0	0	0	0	0	0	0	0	0
Total	42,586	57,251	70,999	81,851	97,600	114,666	136,459	159,322	151,724	167,599	187,830	200,300

Table 3-1: Market share (units) for x86 microprocessor sales in recent years (Source: Mercury Research)

Company	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Intel	73.2%	72.7%	71.0%	79.7%	85.0%	80.3%	82.2%	82.2%	78.7%	83.6%	82.8%	82.5%
AMD	20.9%	16.1%	14.0%	11.5%	7.3%	11.9%	13.6%	16.7%	20.2%	14.9%	15.5%	15.8%
VIA	2.8%	4.0%	4.0%	1.8%	3.5%	4.3%	3.7%	1.0%	0.9%	1.2%	1.5%	1.5%
Transmeta	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.2%	0.2%	0.2%
IDT	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Rise Technology	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
SGS-Thomson	0.0%	0.0%	1.1%	1.7%	1.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
IBM	0.0%	4.6%	3.8%	2.5%	2.7%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TI	0.0%	2.1%	5.0%	2.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Others	3.2%	0.5%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3-2: Market share (percent) for x86 microprocessor sales in recent years (Source: Mercury Research)

PC Processors and Chip Sets

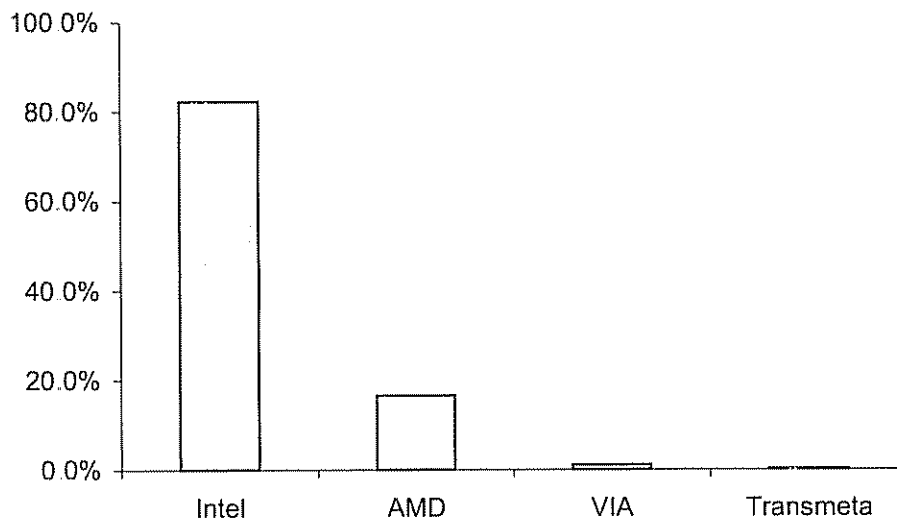


Figure 3-2: Market share (units) for x86 microprocessor sales for the most recent quarter. (Source: Mercury Research)

Company	1Q03	2Q03	3Q03	4Q03	1Q04	2Q04	3Q04	4Q04
Intel	35,788	35,336	40,185	44,273	40,480	38,963	40,242	45,625
AMD	7,253	6,693	7,305	7,790	7,255	7,302	7,832	9,195
VIA	650	675	720	750	620	770	920	600
Transmeta	142	115	67	88	129	171	92	104
Total	43,833	42,819	48,277	52,901	48,484	47,206	49,086	55,524

Table 3-3: Market share (units) for x86 microprocessor sales for the past several quarters (Source: Mercury Research)

Company	1Q03	2Q03	3Q03	4Q03	1Q04	2Q04	3Q04	4Q04
Intel	81.6%	82.5%	83.2%	83.7%	83.5%	82.5%	82.0%	82.2%
AMD	16.5%	15.6%	15.1%	14.7%	15.0%	15.5%	16.0%	16.6%
VIA	1.5%	1.6%	1.5%	1.4%	1.3%	1.6%	1.9%	1.1%
Transmeta	0.3%	0.3%	0.1%	0.2%	0.3%	0.4%	0.2%	0.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3-4: Market share (percent) for x86 microprocessor sales for the past several quarters (Source: Mercury Research)

3.1.2. Segment Share

A few years ago we introduced segment share reporting to deal with the trend towards value desktop v. performance desktops. However, since that time lines have blurred tremendously between the two classes of products. Starting in the second quarter of 2004 we have decided to limit segment share to the three broad segment classes: server, desktop, and mobile processors.

3.1.2.1. Server Segment Share

Please note that server share is limited to Intel and AMD architecture products, and does not include products from Sun Microsystems or IBM. Intel includes Xeon, Xeon MP, and Itanium shipments, while AMD includes Athlon MP and Opteron products. Desktop CPUs used in single-processor servers are counted as desktop shipments, not server shipments.

The fourth quarter was impressive in terms of growth of server products. Collectively the market was up 20.5 percent over the third quarter.

Both Intel and AMD had completely flat share in the server segment in the fourth quarter – even to the hundredths of a percent. Intel remained at 93.1 percent, while AMD maintained its share of 6.9 percent.

PC Processors and Chip Sets

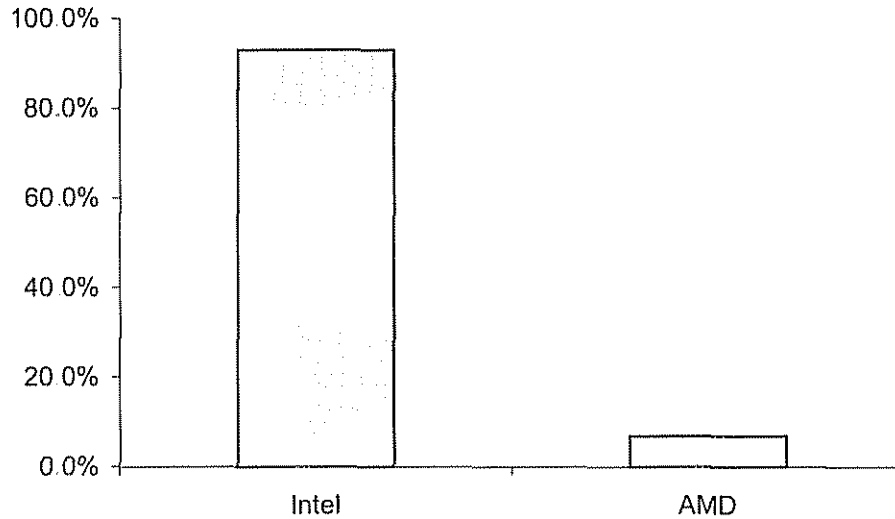


Figure 3-3: Market share (units) for server microprocessor sales for the most recent quarter (Source: Mercury Research)

Company	1Q03	2Q03	3Q03	4Q03	1Q04	2Q04	3Q04	4Q04
Intel	1,111	1,277	1,521	1,851	1,724	1,743	1,844	2,223
AMD	54	40	47	60	87	127	137	165
Total	1,165	1,317	1,568	1,911	1,811	1,870	1,981	2,388

Table 3-5: Market share (units) for server microprocessor sales for the past several quarters. (Source: Mercury Research)

Company	1Q03	2Q03	3Q03	4Q03	1Q04	2Q04	3Q04	4Q04
Intel	95.4%	97.0%	97.0%	96.9%	95.2%	93.2%	93.1%	93.1%
AMD	4.6%	3.0%	3.0%	3.1%	4.8%	6.8%	6.9%	6.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3-6: Market share (percent) for server microprocessor sales for the past several quarters (Source: Mercury Research)

3.1.2.2. Desktop Segment Share

As was the case in the third quarter, desktop CPUs were the weakest segment in the processor market. However, weak is relative with the segment growing 12.1 percent, far better than the seasonal average. Desktop's relatively lower growth is due primarily to a change in the market that is favoring mobile processors at its expense.

Intel's desktop segment share declined one tenth of a point in the fourth quarter of 2004, reaching 79.2 percent, down compared to third quarter share of 79.3 percent.

AMD gained 1.1 points of share in the desktop segment, rising to a 19.3 percent share in the fourth quarter of 2004, reaching 19.3 percent, up compared to third quarter share of 18.2 percent. AMD saw strong gains in shipments of its value-oriented Sempron processor, while its performance Athlon 64 CPU continues to grow strongly. Its older Athlon XP is in rapid decline.

VIA's desktop segment share declined 1.1 points in the fourth quarter of 2004, reaching 1.5 percent, down compared to third quarter share of 2.6 percent. The company's C3 processor experienced a sharp decline in shipments after a meteoric rise last quarter, and either fell victim to Sempron or cannibalization of fourth-quarter demand last quarter.

PC Processors and Chip Sets

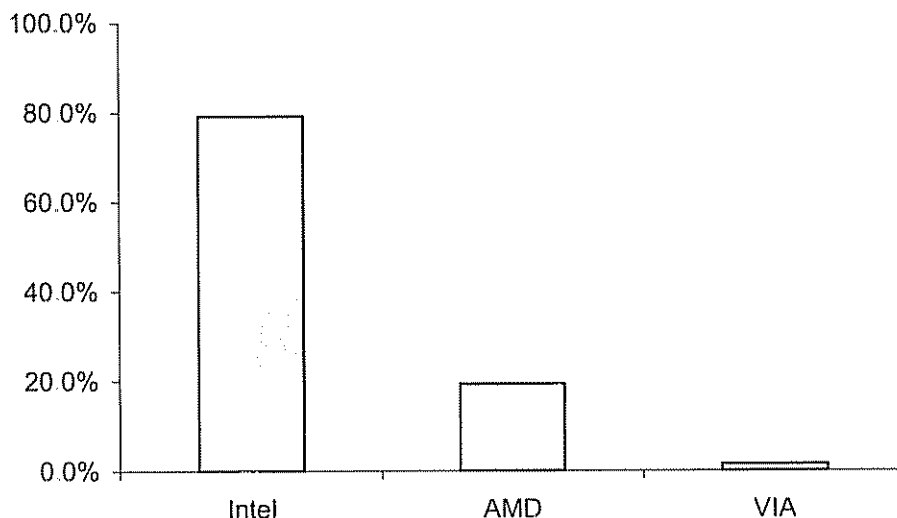


Figure 3-4: Market share (units) for desktop x86 microprocessor sales for the most recent quarter (Source: Mercury Research)

Company	1Q03	2Q03	3Q03	4Q03	1Q04	2Q04	3Q04	4Q04
Intel	26,093	24,058	28,321	30,857	28,877	27,899	28,570	32,017
AMD	6,394	5,844	5,936	6,554	6,407	6,299	6,560	7,808
VIA	650	675	720	750	620	770	920	600
Total	33,137	30,577	34,977	38,161	35,904	34,968	36,050	40,425

Table 3-7: Market share (units) for desktop x86 microprocessor sales for the past several quarters (Source: Mercury Research)

Company	1Q03	2Q03	3Q03	4Q03	1Q04	2Q04	3Q04	4Q04
Intel	78.7%	78.7%	81.0%	80.9%	80.4%	79.8%	79.3%	79.2%
AMD	19.3%	19.1%	17.0%	17.2%	17.8%	18.0%	18.2%	19.3%
VIA	2.0%	2.2%	2.1%	2.0%	1.7%	2.2%	2.6%	1.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3-8: Market share (percent) for desktop x86 microprocessor sales for the past several quarters (Source: Mercury Research)

3.1.2.3. Mobile Segment Share

Incredibly the mobile CPU market out-performed its spectacular third quarter gain in the fourth quarter, growing another 20 percent. Both Intel and AMD experienced new records in the mobile environment, although AMD's mobile growth was much weaker than Intel's.

Intel gained 1.2 points of share in the mobile segment, rising to a 89.0 percent share in the fourth quarter of 2004, up compared to third quarter share of 87.8 percent.

AMD's mobile segment share declined 1.2 points in the fourth quarter of 2004, reaching 10.1 percent, down compared to third quarter share of 11.3 percent. Although AMD did increase its unit shipments, they were outpaced by Intel's growth, and hence the share loss.

Transmeta's mobile segment share was flat in the fourth quarter of 2004 at nine-tenths of a percent.

PC Processors and Chip Sets

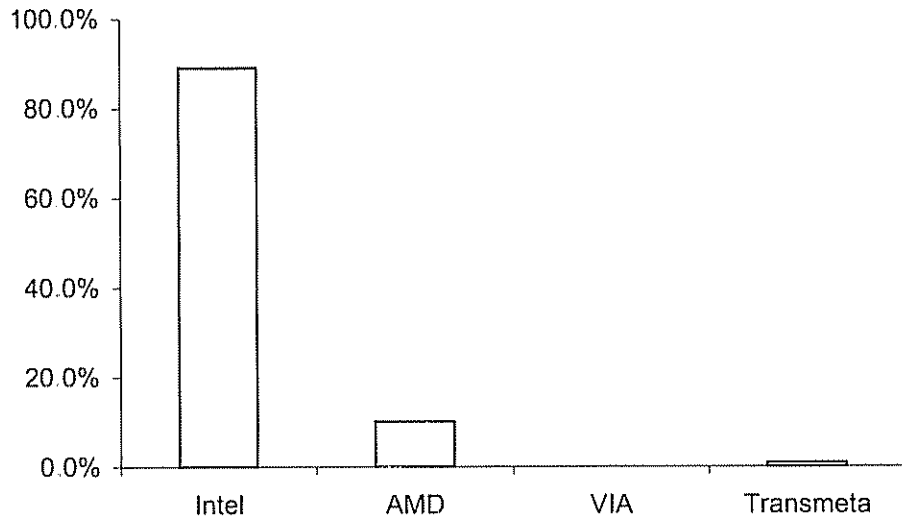


Figure 3-5: Market share (units) for mobile x86 microprocessor sales for the most recent quarter. (Source: Mercury Research)

Company	1Q03	2Q03	3Q03	4Q03	1Q04	2Q04	3Q04	4Q04
Intel	6,799	7,596	8,030	8,843	8,091	8,098	8,846	10,759
AMD	805	809	1,322	1,176	761	876	1,135	1,222
Transmeta	142	115	67	88	129	171	92	104
Total	7,746	8,520	9,419	10,107	8,981	9,145	10,073	12,085

Table 3-9: Market share (units) for mobile x86 microprocessor sales for the past several quarters. (Source: Mercury Research)

Company	1Q03	2Q03	3Q03	4Q03	1Q04	2Q04	3Q04	4Q04
Intel	87.8%	89.2%	85.3%	87.5%	90.1%	88.6%	87.8%	89.0%
AMD	10.4%	9.5%	14.0%	11.6%	8.5%	9.6%	11.3%	10.1%
Transmeta	1.8%	1.3%	0.7%	0.9%	1.4%	1.9%	0.9%	0.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3-10: Market share (percent) for mobile x86 microprocessor sales for the past several quarters. (Source: Mercury Research)

EXHIBIT 19

REDACTED IN ITS ENTIRETY

EXHIBIT 20



Fujitsu to close Gresham flash memory fab

(11/29/2001 12:44 PM EST)

URL: <http://www.eetimes.eu/2913980>

Fujitsu Ltd. today announced its decision to cease production operations at its Gresham, Oregon semiconductor manufacturing facility, Fujitsu Microelectronics, Inc (FMI), by the end of January 2002, and to close the plant and liquidate its assets.

Fujitsu Ltd. today announced its decision to cease production operations at its Gresham, Oregon semiconductor manufacturing facility, Fujitsu Microelectronics, Inc (FMI), by the end of January 2002, and to close the plant and liquidate its assets.

According to the company, the closure reflects the continuing slump in the worldwide semiconductor market, as well as Fujitsu's intent to consolidate production of flash memory at Fujitsu-AMD Semiconductor Limited (FASL), its joint-venture manufacturing facility in Aizu-Wakamatsu, Japan.

Approximately 670 employees at Gresham will be affected by the plant closure, and the process of giving notice of the closing has begun today.

Established in October 1988, the Gresham plant was Fujitsu's first overseas wafer fabrication facility and has served as one of its key production bases for memory products. In April 2000, based on Fujitsu's strategic withdrawal from commodity DRAM production and robust demand for flash memory devices, the Gresham plant began converting all production lines to flash memory. However, due to the precipitous and prolonged downturn of the flash memory market since the beginning of this year, the plant has been operating at levels well below capacity, the company said.

"Amidst this deteriorating market environment, Fujitsu contemplated a variety of alternative strategies for the Gresham plant, including converting it to a joint venture with Advanced Micro Devices, Inc., its longtime partner in the flash memory business," Fujitsu said.

"However, the recovery of the flash memory market now seems likely to be pushed back by at least 6 to 12 months later than the previously anticipated late 2002 time frame. Therefore, Fujitsu has concluded that it must reorganize its worldwide manufacturing structure to eliminate surplus flash memory capacity, a process that unfortunately requires the closing of the Gresham plant."

All employees will remain on the payroll with full benefits until the end of January, the company added.

[Privacy Statement](#) | [Terms of Service](#)

EXHIBIT 21

REDACTED IN ITS ENTIRETY

EXHIBIT 22

REDACTED IN ITS ENTIRETY

EXHIBIT 23

REDACTED IN ITS ENTIRETY

EXHIBIT 24

REDACTED IN ITS ENTIRETY

EXHIBIT 25

REDACTED IN ITS ENTIRETY

EXHIBIT 26

REDACTED IN ITS ENTIRETY

EXHIBIT 27

REDACTED IN ITS ENTIRETY

EXHIBIT 28

REDACTED IN ITS ENTIRETY

EXHIBIT 29

REDACTED IN ITS ENTIRETY

EXHIBIT 30

REDACTED IN ITS ENTIRETY

EXHIBIT 31

REDACTED IN ITS ENTIRETY

EXHIBIT 32

REDACTED IN ITS ENTIRETY

EXHIBIT 33

REDACTED IN ITS ENTIRETY

EXHIBIT 34

REDACTED IN ITS ENTIRETY

EXHIBIT 35

REDACTED IN ITS ENTIRETY

EXHIBIT 36

REDACTED IN ITS ENTIRETY

EXHIBIT 37

REDACTED IN ITS ENTIRETY

EXHIBIT 38

REDACTED IN ITS ENTIRETY