Evolution of the PC Platform

AMD-760™ Chipset & DDR Memory Presentation

October 2000

AMD Technological Innovation

- AMD's first 7th-generation architecture
  - Enabled industry's first volume production 1GHz processor
  - Shipping in volume worldwide, making the fastest processor systems possible for more people
- AMD PowerNow!™ technology
  - Second-generation battery life enhancing technology
  - Enables significantly longer system battery life - up to 30%
  - Technology supports multiple modes of operation
- x86-64™ technology
  - A straightforward approach to implementing 64-bit computing by building on the x86 architecture
  - Delivers 64-bit advantages while providing full x86 compatibility
  - Delivers technology that is designed to seamlessly integrate into existing computing and support environment
- Lightning Data Transport
  - Designed to significantly improve system bandwidth
  - Expected to provide support for the next generation of component technology
  - Planned to enable scalable multiprocessing

DDR Memory – The Evolutionary Solution

- PC manufacturers want a memory solution that:
  - Expands memory bandwidth
  - Delivers additional performance at a reasonable cost
  - Works as a high-volume PC solution
- DDR SDRAM addresses OEMs' needs
- AMD has championed DDR development for its customers
  - Helped drive the industry to a single DDR memory specification
  - Member of the industry wide TeamDDR initiative.
  - Enabled 3rd party validation and compatibility testing through Smart Modular (Fremont, CA) to help ensure device/DIMM compliance with JEDEC standards

Broad Industry Support for DDR Memory

- DDR SDRAM is available from major DRAM suppliers in the world:

- DDR is a natural migration from PC133 SDRAM.
- Its evolutionary design leverages the existing production and testing environment to ensure unrivaled PC performance while remaining price competitive.
- Given its suitability to all applications (desktop, workstation and server) and its performance and cost advantages over other memory technologies, DDR SDRAM is expected to become the new high-performance memory standard
- Supported by motherboard and chipset vendors

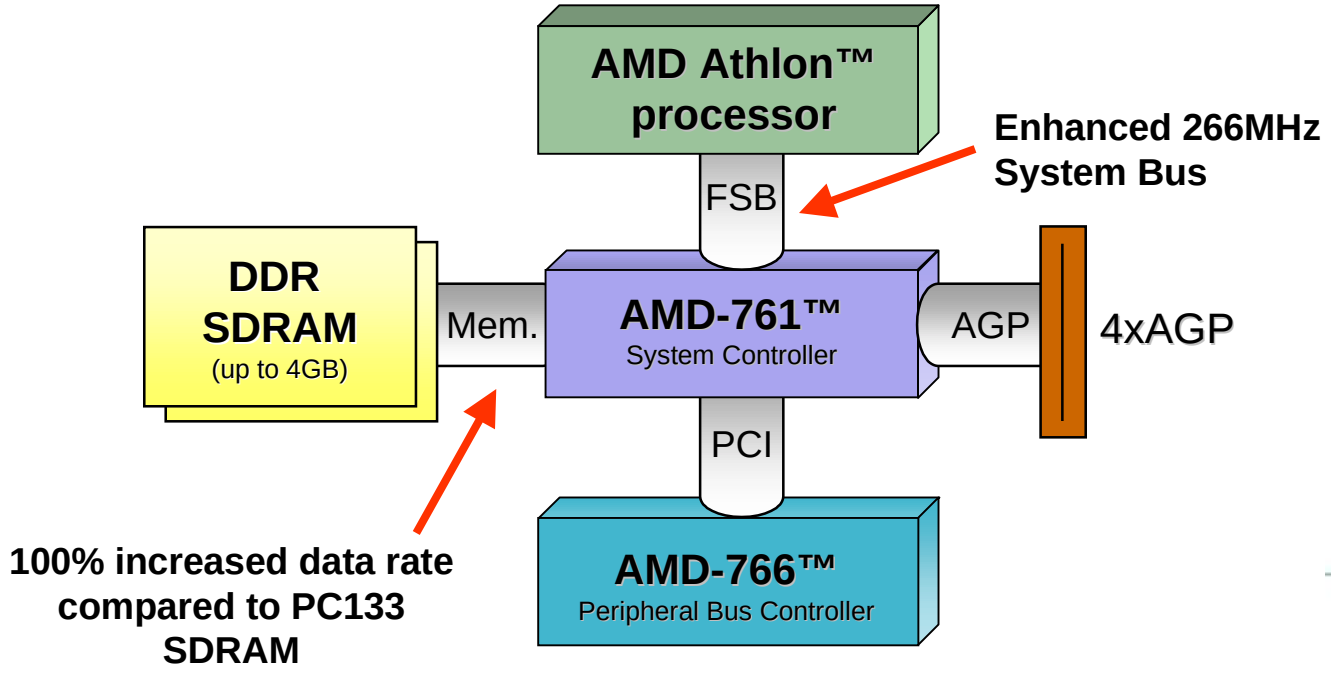
DDR Doubles Peak Data Rate

- DDR has very high memory-to-processor data rate (up to 2.1 GB/sec), a 100% increase compared to PC133 SDRAM memory

Name	Memory Bandwidth	DDR memory peak data rate increase compared to PC133 SDRAM
PC2100 DDR SDRAM (266MHz)	2.1 Gigabytes per sec	100%
PC1600 DDR SDRAM (200MHz)	1.6 Gigabytes per sec	50%

AMD-760™ Platform - Unrivaled PC Performance

- AMD-760™ platforms which use AMD Athlon™ processors and leverage DDR memory are specifically designed to increase performance while:
  - Running memory hungry applications
    - entertainment, media encoding, digital content creation
    - scientific calculations, 3D modeling and others
  - Multi-tasking
- Supports current AMD Athlon processor using a 200MHz system bus as well as the newer AMD Athlon processors featuring a 266MHz system bus
- AMD-760 supports both PC2100 & PC1600 DDR SDRAM memory

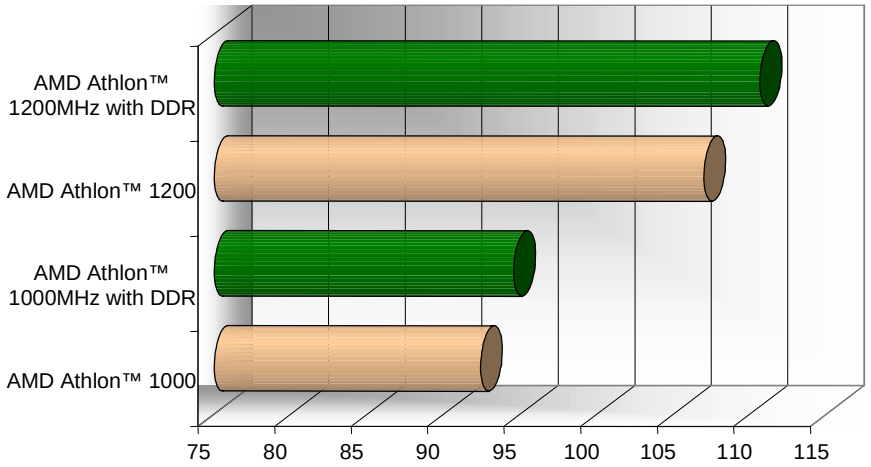


The World's Most Powerful PC Platform

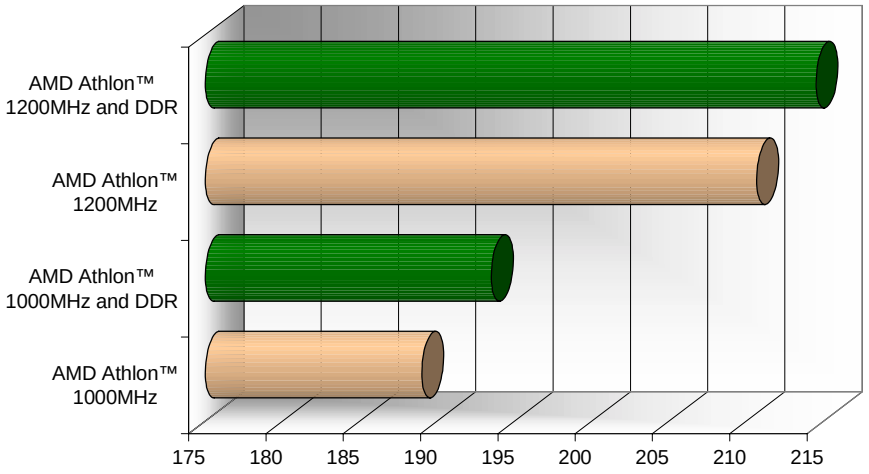
DDR Platform Benchmarks – Windows® Me

**See Backup for Benchmark System Configuration*

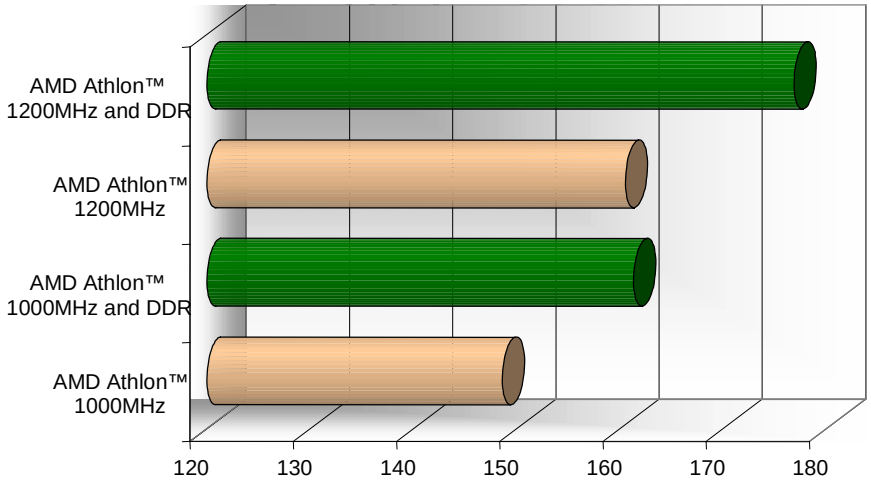
Winbench®99 CPU Mark



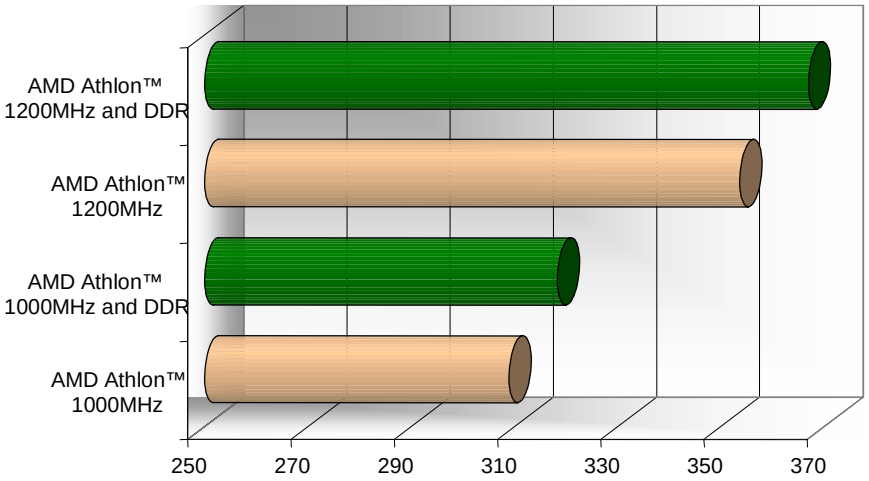
BAPCO SysMark 2000



Quake III Demo002 (N 640 x 480)



3D WinBench™ 2000 (Null)

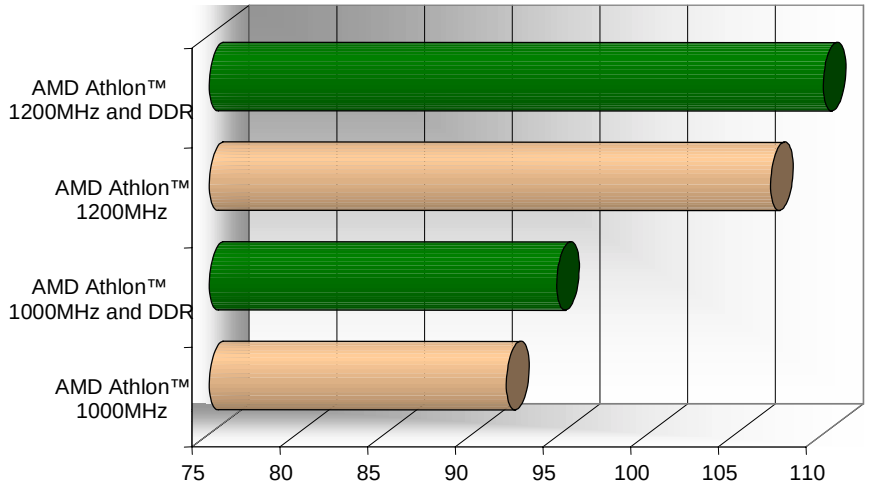


The World's Most Powerful PC Platform

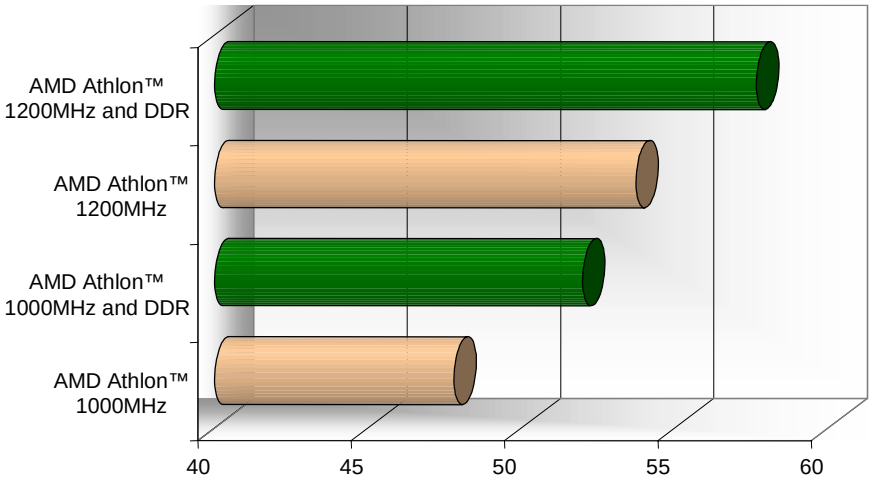
DDR Platform Benchmarks – Windows® 2000

**See Backup for Benchmark System Configuration*

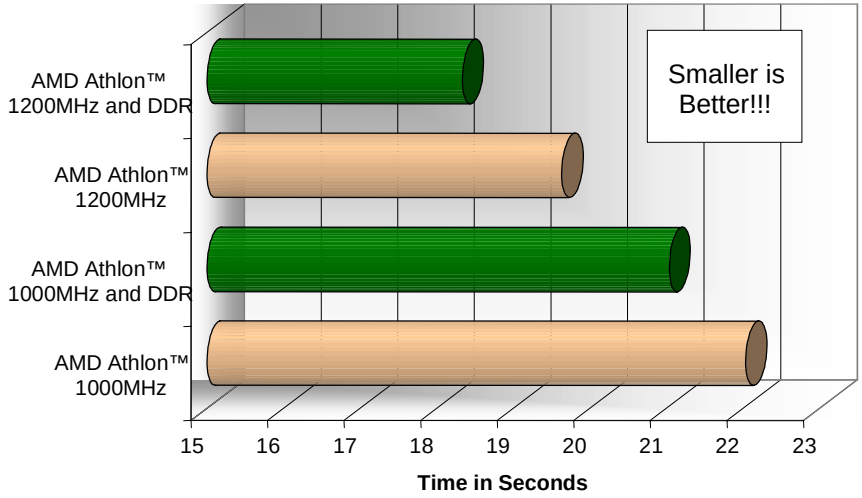
Winbench®99 CPU Mark



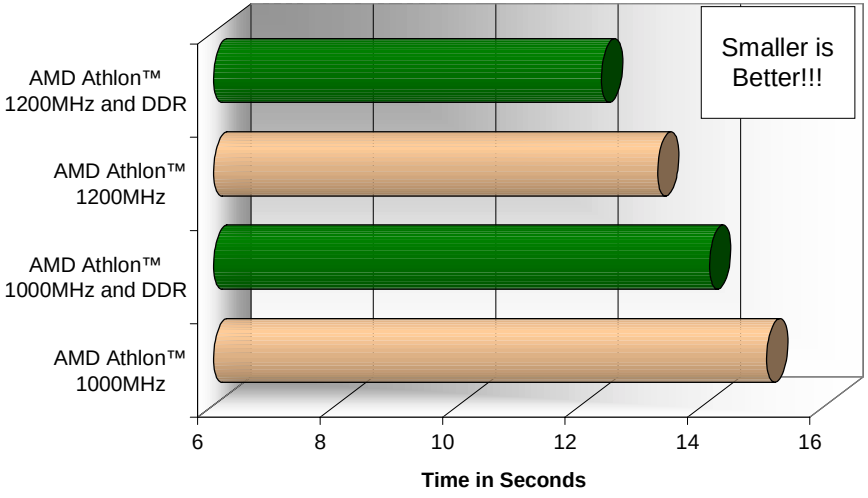
Content Creation Winstone® 2000



Windows® Media Encoder



AutoCAD



System and Component Availability

- OEM Systems
  - Initial system availability is anticipated in November.
    - Retail
    - Direct
  - AMD expects widespread system availability in the first quarter of 2001.
- General market motherboards
  - AMD and numerous vendors are working together to deploy solutions supporting DDR memory.
    - Chipsets
      - VIA
      - SiS
      - ALi
    - Motherboards
      - Abit
      - FIC
      - Gigabyte
      - Asus
      - MSI
      - Biostar
      - and others…….

Summary

- AMD is committed to driving beneficial new technology into the marketplace, enabling compelling solutions for the markets we service.
- In response to requests from our customers, AMD, along with our partners, has championed the adoption of Double Data Rate (DDR) memory technology. Collectively, we are bringing high-performance, affordable memory technologies to market.
- AMD is introducing the AMD-760™ chipset, enabling the first commercially available platform supporting next-generation DDR memory technology. DDR memory is an evolutionary new memory technology that significantly increases data throughput to the processor.
- Initial systems based on this new technology are expected to debut in November. AMD expects widespread system availability in the first quarter of 2001.
- AMD's evolutionary DDR platform infrastructure provides the foundation to continue AMD's leadership position in supplying high performance solutions for the performance PC space.

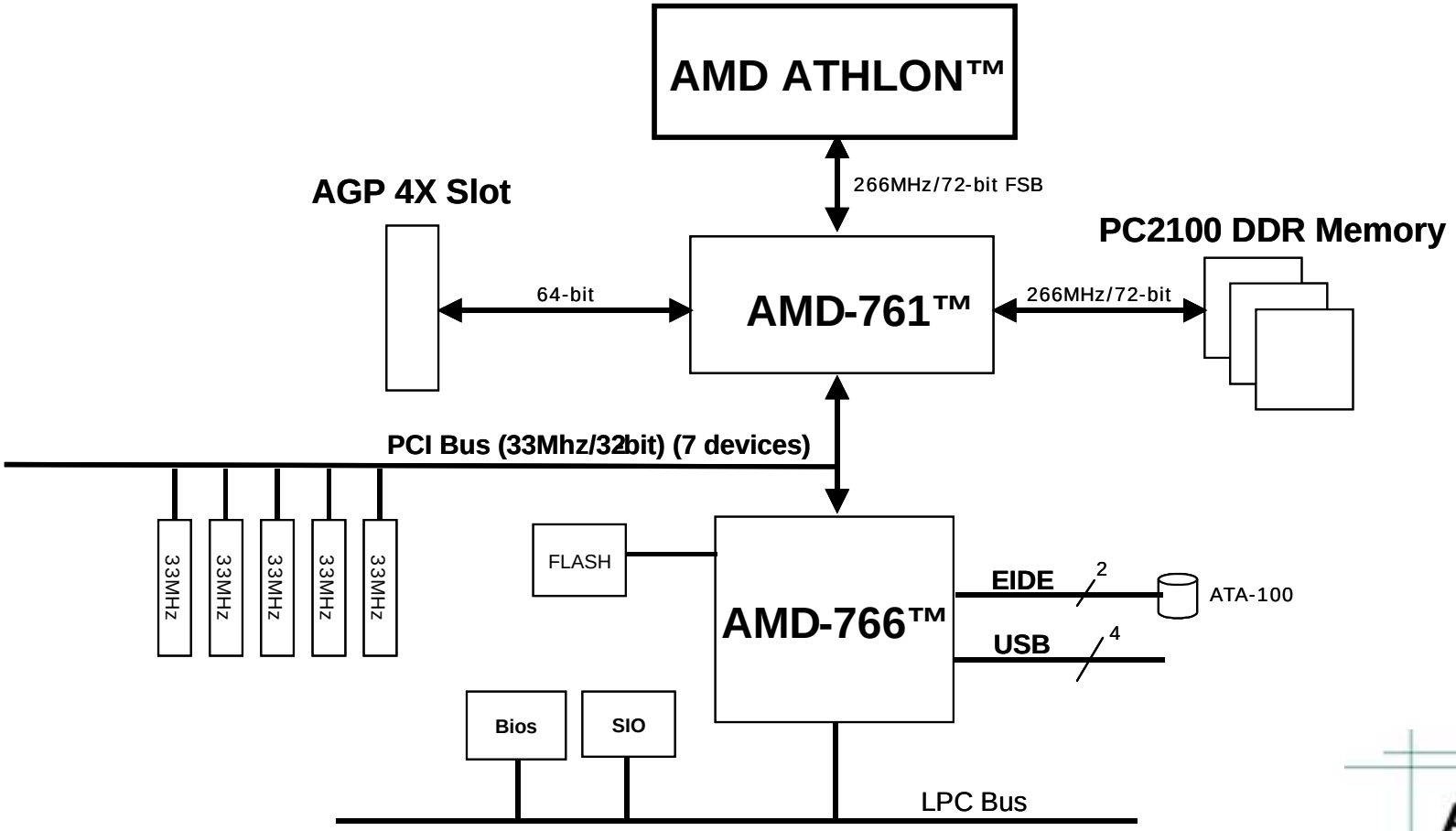
Backup

TeamDDR

- TeamDDR is a collaborative effort among DRAM manufacturers and suppliers, system developers, processor suppliers, and chipset and motherboard manufactures to promote an evolutionary new memory technology - DDR SDRAM.
- The group's role in accelerating market adoption of a DDR standard brings industry cooperation to a new level and provides leadership and direction, while helping ensure low cost, availability, and standardization.

AMD-760™ Chipset

- Consists of two chips
  - AMD-761™ system bus controller (a.k.a. Northbridge)
  - AMD-766™ peripheral bus controller (a.k.a. Southbridge)

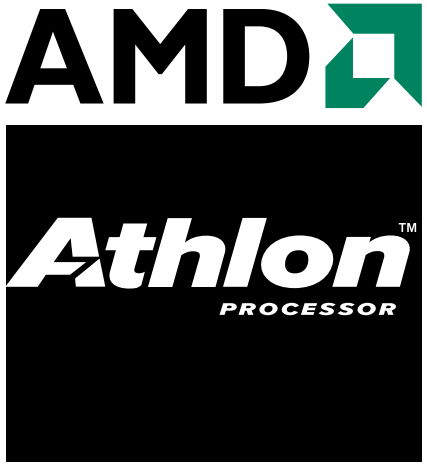


AMD-760™ Chipset – Features and Benefits

Feature	Benefit	Metrics
Double Data Rate (DDR) SDRAM Memory	Outstanding performance-for-price memory technology, delivering tremendous performance on data intensive applications, saving time and increasing productivity.	Up to 100% increase in memory throughput compared to industry standard PC133 SDRAM. Up to 2.1GBytes/sec memory bandwidth.
Up to 4 Gigabytes memory capacity	True workstation memory capability at desktop PC prices. Designed for blazing performance in multitasking environments.	Up to 8x the memory capability of current AMD-750™ based platforms.
Front Side Bus Enhanced to 266MHz	Working in concert with main memory, this enhanced data pipeline from main memory to the AMD Athlon™ processor helps ensure that critical data reaches the processor faster. This means critical data is processed quickly and applications run faster and graphics are smooth.	This 266MHz synchronous pipeline is a low latency path from main memory to the AMD Athlon™ processor which provides 33% more bandwidth over the today's AMD Athlon™ systems.
ATA-100 HDD Controller	While compatible with today's hard drives, the AMD-760™ chipset supports the next generation of hard drives, enabling faster writes and better performance across all applications.	Faster hard drive interface than today's industry standard ATA-66.
4xAGP Graphics	Enabling the ultimate multimedia experience.	Delivering more than 1GB/sec throughput of data from main memory to graphics, 100% increase compared to current 2xAGP technology.

AMD Athlon™ Processor

- AMD Athlon processor is now available with either a 200MHz front-side bus (FSB) or a 266MHz FSB.
- OEM, distributors and VARs can identify the AMD Athlon processor that meets their needs in the ordering part number (OPN).



1kU Pricing

- AMD Athlon™ processors (266MHz system bus)
  - 1,200MHz $673**
  - 1,133MHz $506**
  - 1,000MHz $385**
- AMD Athlon processors (200MHz system bus)
  - 1,200MHz $612*
  - 1,100MHz $460*
  - 1,000MHz $350*
  - 950MHz $282*
  - 900MHz $215*
  - 850MHz $193*
- AMD-760™ Chipset $39**

**Pricing effective as of October 17, 2000.*

*****Pricing is tentative. Pricing is determined by market conditions, and is subject to change prior to launch.***

Benchmark Configurations

Operating System	Windows® Me	No service packs or updates installed
Hardware	Motherboard	DDR Platforms - Gigabyte 7DX, BIOS rev. P15a PC133 Platform - Asus A7V (board rev. 1.01, VRM module rev. 1.6, KT-133 chipset, BIOS rev. 1004a)
	Chipset	Gigabyte 7DX – AM-760™ & VIA-686A Asus A7V – VIA-KT133
	Memory	PC2100 (DDR SDRAM) Qty. (2), 128MB DIMM Modules (256MB total) PC1600 (DDR SDRAM) Qty. (2), 128MB DIMM Modules (256MB total) PC133 (SDRAM) Qty. (2), 128MB DIMM Modules (256MB total)
	Hard Drive	IBM 30.7GB UDMA 100 (model DTLA-307030)
	Network Card	Allied Telesyn AT2700TX 10/100
	Sound Card	Sound Blaster Live!
	Video Card	Elsa Gladiac GeForce 2 GTS (64MB, 4x AGP)
Drivers	AGP Miniport	AMD AGP miniport driver rev. 4.71
	EIDE Drivers	Driver provided by operating system (DMA enabled in Device Manager),
	Network Card	Driver provided by operating system
	Sound Card	Driver provided by operating system
	Video Card	nVidia Detonator 6.27 (Build 4.12.01.0627) (Video driver provided for AMD and is not commercially available)

Cautionary Statement

This release contains forward-looking statements, which are made pursuant to the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements are generally preceded by words such as “plans,” “expects,” “believes,” “anticipates” or “intends.” Investors are cautioned that all forward-looking statements in this release involve risks and uncertainty that could cause actual results to differ materially from current expectations. Forward looking statements in this document include the risk that new technologies may not be developed or released as planned, that DDR platforms may not achieve market acceptance, and that systems based on the DDR platform may not be available on the anticipated schedule or at all. We urge investors to review in detail the risks and uncertainties in the Company’s filings with the United States Securities Exchange Commission.