



# AMD Mobile

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Enabling  
Digital Brilliance

# A Year of Achievement for AMD Mobile!

- Mobile AMD Athlon™ 64 Processor
  - First “Thin & Light” Mobile Athlon 64 platform launched in July, 2004
- Mobile AMD Sempron™ Processor
  - 62W and 25W products introduced in August 2004
- AMD64 CPU sales reached/exceeded 50% of mobile revenue in 3Q04
- AMD Turion™ 64 Mobile Technology
  - Introduction by Lance Armstrong at CES 2005 in Las Vegas
  - Launched at CeBIT 2005 in Hannover, Germany

# AMD Mobile Covers the Spectrum



DTR

Full-Size

T&L



AMD solutions for a full range of market needs and usage models with the world's only 64-bit mobile PC processors

# AMD Mobile Processor Positioning

MOBILITY



## Thin & Light Notebooks

- AMD64 performance, made for mobility

PORTABILITY



## Full-size Notebooks

- Exceptional performance that goes with you



## Desktop Replacement Notebooks

- Ultimate desktop level performance in a notebook

VALUE



## Value Notebooks

- Redefining everyday computing for today's mobile lifestyle

# AMD Mobile Processor Key Points

- **AMD Turion™ 64 Mobile Technology:**
  - Optimized for Thin and Light notebook computers
  - Windows-compatible 64-bit PC processor
  - Compatible with the latest Graphics and Wireless solutions
  - Enhanced Virus Protection\*
- **AMD Mobile Athlon™ 64 & AMD Athlon™ 64 Processors:**
  - Performance leader for the Full Size & DTR market
  - Windows-compatible 64-bit PC processor
  - Enhanced Virus Protection\*
- **AMD Mobile Sempron™ Processor:**
  - The best processor for the value conscious consumer
  - Features AMD PowerNow! Technology
  - Enhanced Virus Protection\*

**AMD Provides Differentiated Solutions for all Mobile Market Segments!**

\*After properly installing the operating system, users must enable the protection of their applications and associated files from buffer overrun attacks. Consult your OS documentation for information on enabling EVP. AMD and its partners strongly recommend that users continue to use third party anti-virus software as part of their security strategy.

# AMD Turion™ 64 Mobile Technology

## AMD Ushers in a New Era in Mobile Computing



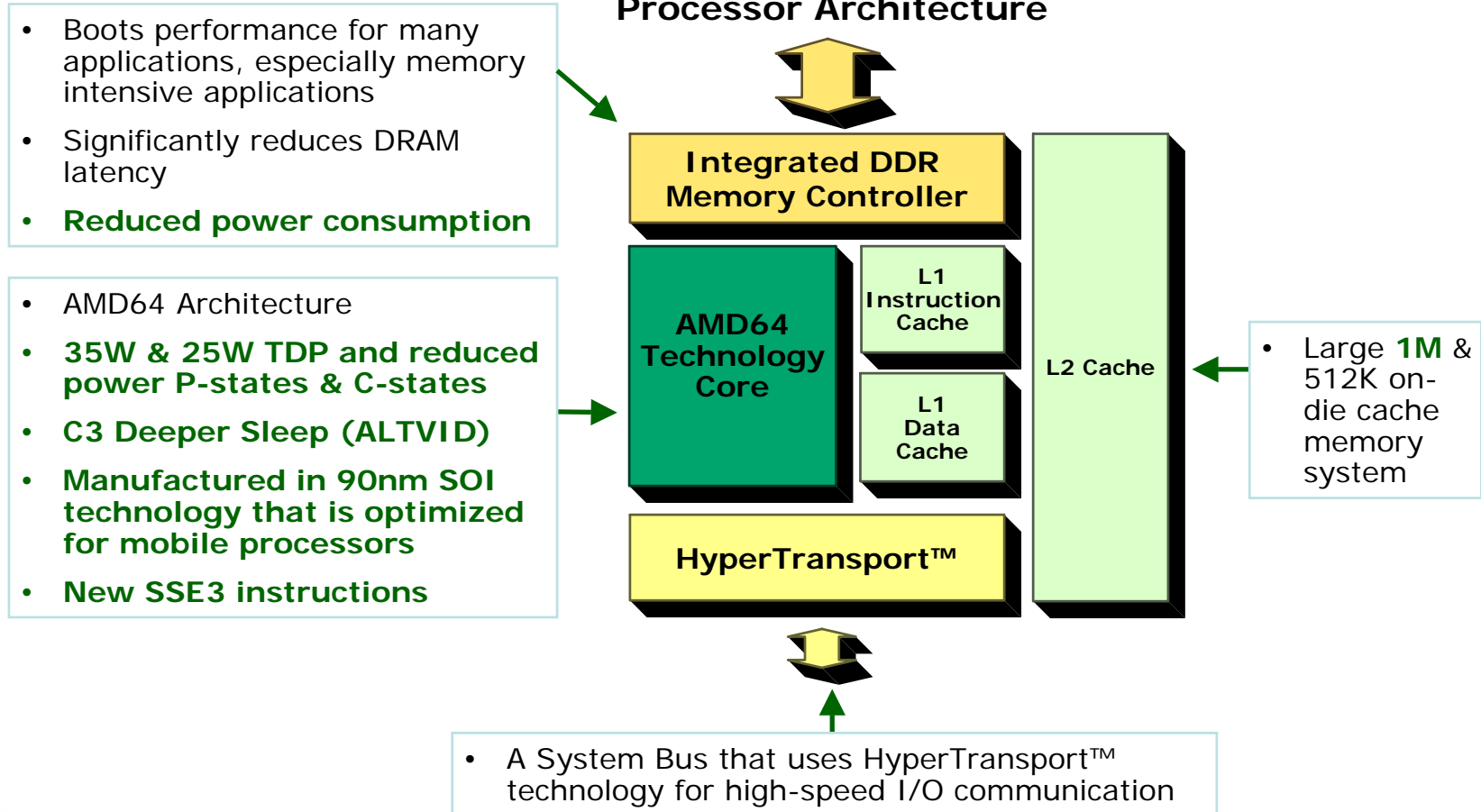
*AMD64 Performance  
Made for Mobility*

AMD Turion™ 64 mobile technology is uniquely optimized to deliver AMD64 performance in thinner and lighter notebook designs with longer battery life, enhanced security, and compatibility with the latest wireless and graphics technologies, today and tomorrow.

# AMD Turion™ 64 Mobile Technology

## Key Architectural Features

### AMD Turion™ 64 Mobile Technology Processor Architecture



**Green indicates new features with AMD Turion 64 Mobile Technology**

# AMD Turion™ 64 Mobile Technology

## Competitive Comparison

Features	AMD Turion™ 64 Mobile Technology	Intel Pentium® M
64-bit Instruction Set Support	Yes, AMD64 technology	No
System Bus Technology	HyperTransport™ technology, up to 1600MHz Full duplex	533MHz Front Side Bus Half duplex
Integrated Memory Controller	Yes	No
Virus Protection	Enhanced Virus Protection*	Execute Disable Bit**
Advanced Power Management	AMD PowerNow!™ technology	Enhanced Intel SpeedStep technology
3D and Multimedia Instructions	3DNow!™ Professional technology, SSE2, SSE3 and MMX instructions	MMX, SSE, SSE2

 = AMD Advantage

\*\*This feature is not available on all processors

\* Enhanced Virus Protection (EVP) is only enabled by certain operating systems including the current versions of Microsoft® Windows®, Linux, Solaris and BSD Unix. After properly installing the appropriate operating system release, users must enable the protection of their applications and associated files from buffer overrun attacks. Consult your OS documentation for information on enabling EVP. Contact your application software vendor for information regarding use of the application in conjunction with EVP. AMD and its partners strongly recommend that users continue to use third party anti-virus software as part of their security strategy.

# AMD Turion™ 64 Mobile Technology Model Numbers

Greater Performance ↑	Frequency/ L2 Cache	35W TDP	25W TDP
	2GHz/1M	ML-37	--
	1.8GHz/1M	ML-34	MT-34
	1.8GHz/512K	ML-32	MT-32
	1.6GHz/1M	ML-30	MT-30
		Greater Mobility →	

## AMD Turion™ 64 Mobile Technology MT-34

### Letters

- Two letters together designate processor class
- Second letter designates increasing degree of mobility

A → Z

“Higher” letter indicates lower power consumption, enabling longer system battery life

### Numbers

- Designate relative processor performance
- Higher model numbers indicate higher relative performance\*

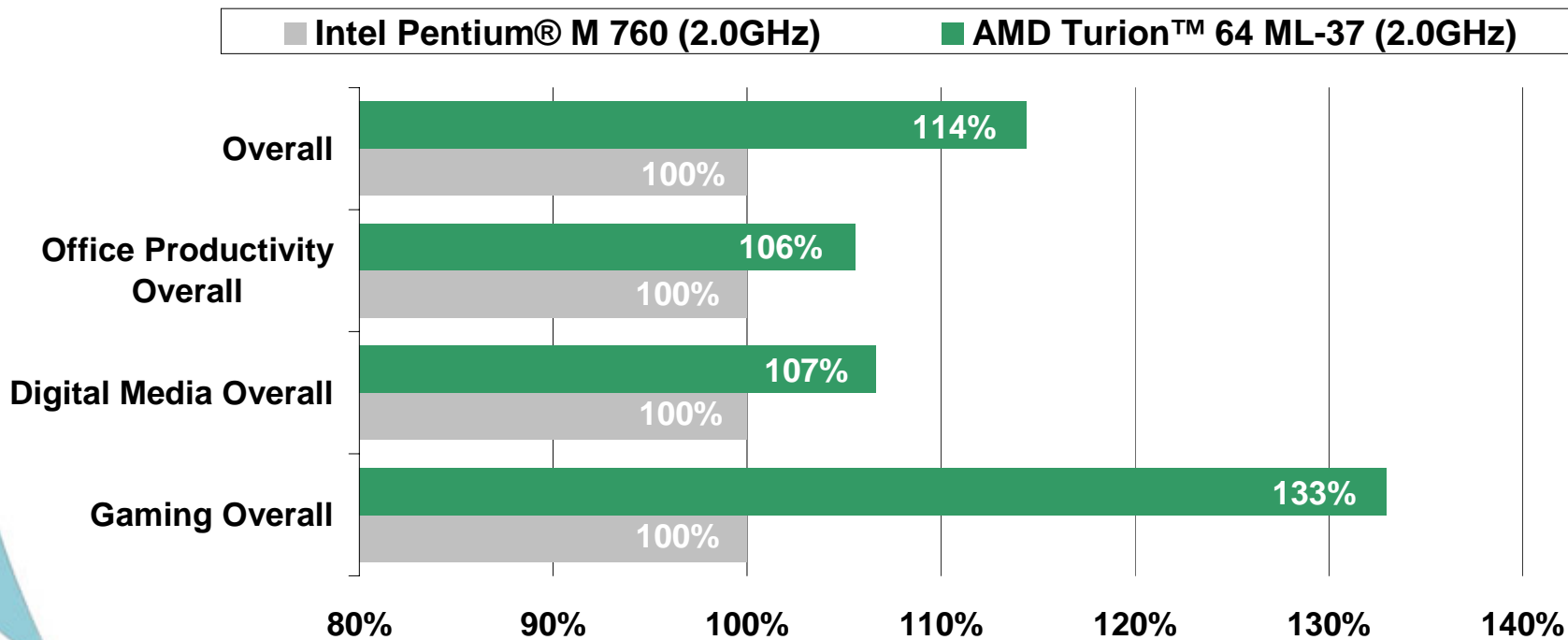
\*Model numbers reflect relative performance within AMD Turion™ 64 mobile technology family

# AMD Turion™ 64 Mobile Technology

## Competitive Comparison

### AMD Turion™ 64 Mobile Technology Performance Benchmark

#### Notebook PC Overall Performance



# AMD Turion™ 64 Mobile Technology Benchmark System Configurations

Operating System		Microsoft® Windows® XP Professional, RTM, Service Pack 2 installed, Build 2600, DirectX 9.0c
Hardware	Processor	AMD Turion™ 64 ML-37 (2.0GHz, 1MB L2)
	Notebook	ATI Piranha reference board, BIOS version 80012, 1/18/2005*
	Chipset	ATI Mobility Radeon Xpress 200 Series
	Memory	512MB DDR SDRAM (PC3200/DDR400, CAS Latency 3.0, 1GB used with Panorama Factory Benchmark)
	Hard Drive	Hitachi HTS548040M9AT00, 40GB, 5400RPM, 8MB buffer, UDMA100 (NTFS used to format the hard disk)
	Video	Integrated in chipset, 92MB total video memory (32MB dedicated, 64MB shared from system memory)
	Audio	ATI Integrated Digital Audio
	LAN	Realtek RTL8169/8110 Family Gigabit Ethernet (disabled during test)
	Wireless LAN	None
Power Scheme		Always On
Drivers	AGP	N/A
	IDE	ATI version 5.0.0.2, 4/15/2004, DMA enabled
	Video	ATI version 6.14.10.6505, 12/16/2004, 1024x768x32
	Audio	ATI version 510.30001.20, 7/27/2004
	LAN	Realtek version 5.612.413.2004, 4/13/2004
	Wireless LAN	N/A

\* Not available to general public

# Intel Centrino

## Benchmark System Configurations

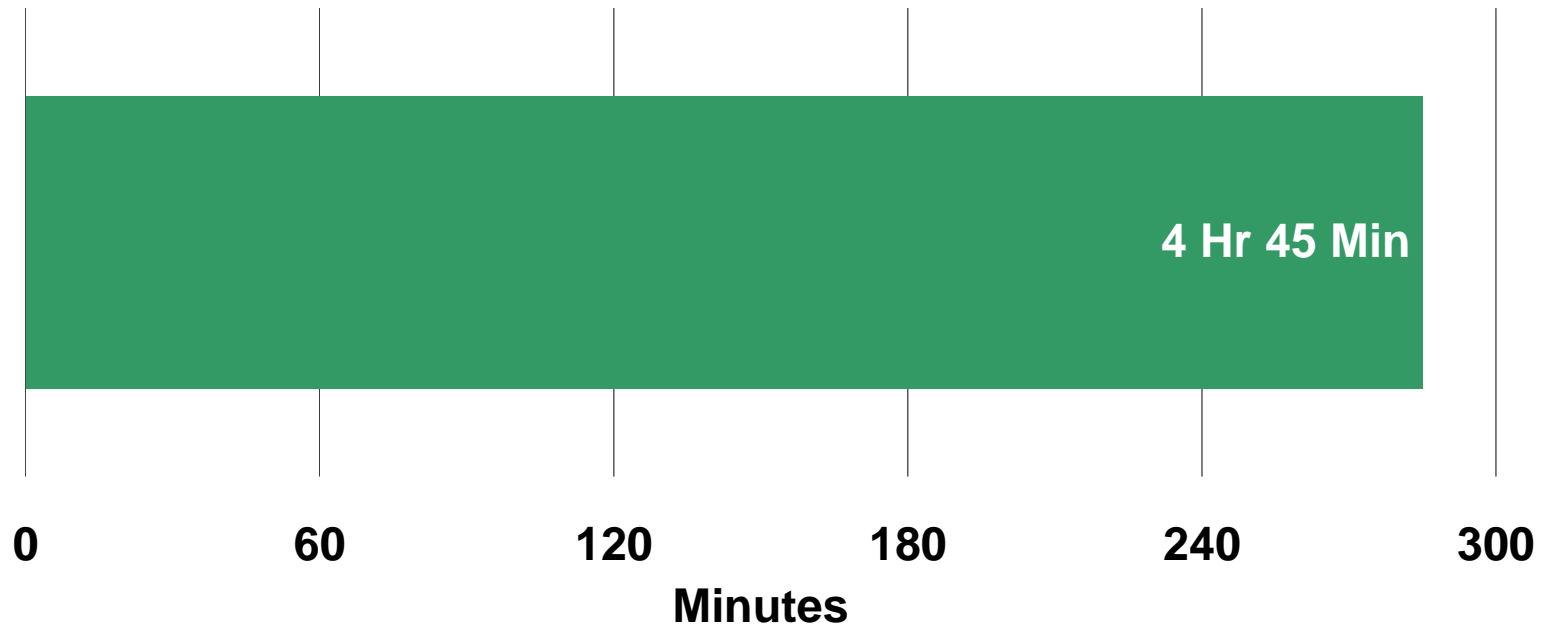
Operating System		Microsoft® Windows® XP Professional, RTM, Service Pack 2 installed, Build 2600, DirectX 9.0c
Hardware	Processor	Intel Pentium® M 760 (2.00GHz, 2MB L2, 533MHz bus)
	Notebook	Dell Inspiron 6000, BIOS Version A03, 01/12/2005
	Chipset	Intel 915GM
	Memory	512MB DDR2 SDRAM (PC2-4200/DDR2 533, CAS latency 4, 2 DIMMs, 1GB used with Panorama Factory benchmark)
	Hard Drive	Hitachi HTS548040M9AT00, 40GB, 5400RPM, 8MB buffer, UDMA100 (NTFS used to format the hard disk)
	Video	Integrated in chipset, 128M video memory shared from system memory
	Audio	SigmaTel C-Major Audio
	LAN	Broadcom 440x 10/100 Integrated Controller (disabled during test)
	Wireless LAN	Intel PRO/Wireless 2915ABG Network Connection (disabled during test)
Power Scheme		Always On
Drivers	AGP	N/A
	IDE	Intel version 6.1.0.1004, 3/24/2004, DMA enabled
	Video	Intel version 6.14.10.3929, 10/8/2004, 1024x768x32
	Audio	SigmaTel version 5.10.0.4243, 9/16/2004
	LAN	Broadcom version 4.25.0.0, 08/10/2004
	Wireless LAN	Intel version 9.0.0.6, 10/24/2004

# AMD Turion 64 Battery Life

## What is possible?

AMD Turion™ 64 MT-34

MobileMark™ 2002 – Battery Life



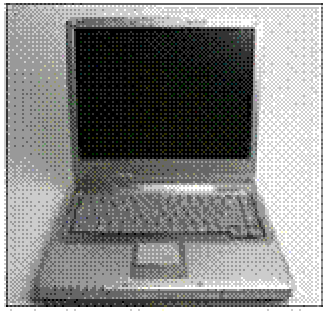
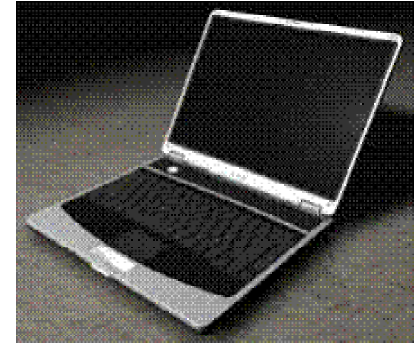
# AMD Turion™ 64 Mobile Technology Benchmark System Configurations

Operating System		Microsoft® Windows® XP Professional, RTM, Service Pack 2 installed, Build 2600, DirectX 9.0c
Hardware	Processor	AMD Turion™ 64 MT-34 (1.8GHz, 1MB L2)
	Notebook	Arima M622, BIOS version 760UB05, 2/22/2005
	Chipset	ATI Mobility Radeon Xpress 200 Series
	Memory	512MB DDR SDRAM (PC2700/DDR333, CAS Latency 2.5)
	Hard Drive	Hitachi HTS548040M9A100, 40GB, 5400RPM, 8MB buffer, UDMA100 (NTFS used to format the hard disk)
	Video	Integrated in chipset, 64MB total video memory
	Audio	Conexant AC-Link Audio
	LAN	Yukon 88E8053 PCI-E Gigabit Ethernet Controller (disabled during test)
	Wireless LAN	RaLink RT2500 Wireless LAN Card (disabled during test)
	LCD	15" screen, brightness ~ 30nits
	Battery	9-cell Li-ion, 73WHr
Power Scheme		Portable/Laptop
Drivers	AGP	N/A
	IDE	ATI version 5.0.0.2, 4/15/2004, DMA enabled
	Video	ATI version 6.14.10.6490, 9/28/2004, 1024x768x32
	Audio	Conexant version 6.13.10.365, 11/11/2004
	LAN	Marvell version 7.24.1.3, 10/27/2004
	Wireless LAN	RaLink version 3.0.1.0, 12/15/2004

# AMD Mobile is the *right* choice!

- **Enhanced Virus Protection\***
  - All AMD Mobile processors have 'Enhanced Virus Protection' technology for safer surfing, email and file sharing
- **PowerNow! Technology**
  - All AMD Mobile processors have this original innovative technology
  - Automatic variance of frequency and voltage for a balanced approach to performance and battery life
- **AMD64 Architecture for Performance and Extended Life**
  - Migrate from 32-bit to 64-bit applications at your own pace
  - Actual computer performance will improve in the future with 64-bit OS/Apps
- **Choice of Wireless and Chipset/Graphics solutions**
  - Differentiated position in the market from the competition's standard solution
  - Co-marketing/branding opportunities with graphics and wireless providers
- **Customer's brands are the dominant brands**
  - Use AMD and other partners products/brands to support and strengthen offering
  - Do not put a component brand above the notebook brand

# AMD + VIA = A Great Choice!



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