The 2009 AMD Notebook Platform for Mainstream PCs featuring AMD Athlon™ II Processors & ATI Radeon™ HD Graphics
Next-generation performance for an amazing entertainment experience.

**PROCESSORS**
- AMD Athlon™ II X2 Dual-Core Mobile Processors
- ATI Radeon HD 4200 Series Integrated Graphics
- ATI Radeon HD 4000 Series Premium Graphics

**PRODUCT FEATURES**
- Affordable, mobile, dual-core performance and HD™ playback
- Optimized to deliver the benefits of the Microsoft® Windows® 7 operating system
- True HD entertainment with Blu-ray™ playback capability
- Great mainstream gaming with Microsoft® DirectX® 10.1
- Sharper, more life-like 3D images in games, videos, DVDs, and more with AMD Digital Media XPress™ 2.0 technology
- Long battery life and leading-edge wireless technologies for fast downloads and connection anywhere

<table>
<thead>
<tr>
<th>Feature</th>
<th>Function</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Profile CPU Package Design</td>
<td>New processor package features small footprint (27x27mm) and low profile (2.5mm), reducing platform height up to 50%.</td>
<td>Designed to enable today’s latest, ultra-sleek, ultra-thin notebook PC designs for the ultra-mobile lifestyle.</td>
</tr>
<tr>
<td>Low CPU Thermal Design Power</td>
<td>Latest generation thermal solutions help to enable low cooling requirements.</td>
<td>Designed to enable today’s latest, ultra-sleek, ultra-thin notebook PC designs for the ultra-mobile lifestyle.</td>
</tr>
<tr>
<td>AMD PowerNow!™ Technology</td>
<td>Dynamically switches performance states (processor core voltage and operating frequency) based on processor performance requirements.</td>
<td>Get more time to play/more time to work with AMD PowerNow!™ technology, the first dynamic power management technology in the industry, which delivers performance on demand and helps extend system battery life.</td>
</tr>
<tr>
<td>AMD Digital Media XPress™ 2.0 Technology</td>
<td>Provides support for SSE, SSE2, SSE3, and MMX™ instructions.</td>
<td>Compatible with a large installed base of multimedia-enhanced software, and designed to provide stellar performance and playback quality on digital entertainment such as games, streaming video and audio, DVDs, and more.</td>
</tr>
<tr>
<td>HyperTransport™ Technology</td>
<td>A high-speed, low latency, point-to-point communication link, providing outstanding bandwidth between system components.</td>
<td>Helps provide incredible system agility and graphics performance capability.</td>
</tr>
<tr>
<td>Integrated Memory Controller</td>
<td>Directly connects CPUs to memory, optimizing memory performance and bandwidth per CPU.</td>
<td>Helps enhance performance as memory access latency is dramatically reduced.</td>
</tr>
<tr>
<td>Direct Connect Architecture</td>
<td>Designed to eliminate the real challenges and bottlenecks of system architectures through the use of separate, dedicated high-speed links between the processor and main memory, between the processor and I/O, between CPU cores within the same processor</td>
<td>Enables leading-edge performance by helping to reduce delays caused when multiple components compete for access to the same common bus. Competing x86 systems use a common front-side bus (FSB).</td>
</tr>
<tr>
<td>DDR2 Memory</td>
<td>Second-generation DDR memory designed to improve overall memory performance through increased data rates and large densities.</td>
<td>Higher memory bandwidth over first-generation DDR for increased performance and productivity.</td>
</tr>
<tr>
<td>Enhanced Virus Protection¹</td>
<td>Sets part of system memory aside as ‘data only’ so resident code cannot be executed, only read from or written to.</td>
<td>Helps safeguard music, pictures, videos, and other important data.</td>
</tr>
</tbody>
</table>

**Operating System Compatibility**
The 2009 AMD Notebook Platform for Mainstream PCs featuring AMD Athlon™ II Processors & ATI Radeon™ HD Graphics

EXCEPTIONAL PERFORMANCE
Delivering next-generation performance for an amazing entertainment experience — virtually anywhere you want it.

- Do more in less time with true multi-core processing for superior digital media and 3D gaming
- Enjoy affordable dual-core performance on the go
- Optimized to deliver the benefits of the Microsoft® Windows® 7 operating system
- Run multiple applications simultaneously

ULTIMATE HD EXPERIENCE
The HD your eyes crave with vivid, rich, life-like colors for your favorite Blu-ray™ movies and the latest 3D games.¹ ²

- Enjoy HD entertainment and 1080p playback capabilities and experience the difference in your entertainment³
- Get Microsoft® DirectX® 10.1 compatibility — so you can experience today’s latest mainstream 3D games

DESIGNED FOR MOBILITY
Optimized technologies for improved battery life, and the latest wireless solutions for faster downloads of HD content.⁴

- Get long battery life and performance on demand with AMD PowerNow™ 2.0 technology
- Get up to 62% fast downloads and streaming high-definition content with 802.11n wireless⁵

### Processor Product Specifications/Model Comparison Data

<table>
<thead>
<tr>
<th>Model</th>
<th>OPN</th>
<th>Clock Speed</th>
<th>TDP</th>
<th>Cache</th>
<th>Cores on Die</th>
<th>FPU</th>
<th>Max CPU BW</th>
<th>I/O Bus Speed</th>
<th>AMD-V™</th>
</tr>
</thead>
<tbody>
<tr>
<td>M340</td>
<td>AMM340DB022GQ</td>
<td>2.2 GHz</td>
<td>35W</td>
<td>1MB total dedicated L2</td>
<td>2 cores</td>
<td>64b</td>
<td>25.6 GB/s</td>
<td>3.2 GT/s</td>
<td>Yes</td>
</tr>
<tr>
<td>M320</td>
<td>AMM320DB022GQ</td>
<td>2.1 GHz</td>
<td>35W</td>
<td>1MB total dedicated L2</td>
<td>2 cores</td>
<td>64b</td>
<td>25.6 GB/s</td>
<td>3.2 GT/s</td>
<td>Yes</td>
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<tr>
<td>M300</td>
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</tr>
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</table>

Note: Features are preliminary and subject to change without notice. Customer should always consult technical documentation for design specifications.

1 1080p - capable display required.
2 Blu-ray™ drive required.
3 HD monitor required.
4 Additional hardware or software may be required.
5 Separately purchased TV Tuner may be required.
6 Recording of content may be subject to digital rights management (DRM) restrictions.
7 Internet access and additional hardware or software may be required (not included).
8 Not all features will be supported on all machines. Check with your PC manufacturer for specific model capabilities and supported technologies.
9 High-speed online access may be required, may not be available in all areas.
10 In tests conducted by AMD technology partner Atheros, AMD-based notebooks downloaded 5 HD home movies, 200 digital photos and 80 mp3 songs in 62% less time than the competing Intel solution. AMD Turion™ X2 Ultra Dual-Core Mobile Processor-based Platform w/Atheros AR9280 vs. Intel 4965AGN. Source: AMD Integrated Graphics Benchmark Configurations, Wireless.
11 Recording of content may be subject to digital rights management (DRM) restrictions.
12 Internet access and additional hardware or software may be required (not included).
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