May 15, 2012

Second-Generation AMD A-Series APUs Enable Best-in-Class PC Mobility, Entertainment, and Gaming Experience in Single Chip

Up to 12 Hours of Battery Life(1) and Double the Performance-Per-Watt(2) Compared to Previous Generation -- 17-Watt APU Gives Users an Affordable and Uncompromised Visual Experience for Ultrathins -- AMD Has a Record Number of APU-Based Notebook Design Wins With Global OEMs

SUNNYVALE, CA -- (Marketwire) -- 05/15/12 -- AMD (NYSE: AMD) today announced the widely anticipated launch of its 2nd-Generation AMD A-Series Accelerated Processing Units (APUs) for mainstream and ultrathin notebooks, All-in-One and traditional desktops, home theater PCs and embedded designs.

The 2nd-Generation A-Series APU, codenamed "Trinity," is a grounds-up improved design over the previous generation, enabling a best-in-class PC mobility, entertainment, and gaming experience. New features of the product design include:

- Double the performance per watt of the previous generation;(2)
- The AMD HD Media Accelerator with a unique set of technologies designed to optimize video quality available with premium and Internet video content, and accelerate video file conversion;
- An *increase in CPU performance of up to 29 percent*(3) with higher processor speeds thanks to the next-generation AMD "Piledriver" CPU core with 3rd-Generation *AMD Turbo Core technology*, where power is dynamically shifted between the CPU and GPU depending on application needs, effectively providing a more responsive experience that can boost CPU frequencies to up to 3.2 GHz;
- *AMD Radeon™ HD 7000 Series graphics* for an increase of graphics performance up to 56% over the previous generation.(4) Combined, the CPU and GPU cores deliver more than 700 gigaflops of computing performance(5) -- several times more than the fastest x86 CPUs -- to boost performance of hundreds of applications;
- Up to *12 hours of battery life* through CPU and GPU power enhancements, with clear battery life leadership in notebook form factors.

"The latest OEM notebooks, ultrathins, All-in-Ones and desktops based on the new AMD A-Series APU enable the best video and gaming experiences, highly responsive performance with AMD Turbo CORE, and accelerate an ever-increasing range of productivity and multimedia applications -- in sleek, stylish designs at price points that make sense," said Chris Cloran, corporate vice president and General Manager, AMD Client Business Unit. "Our 2nd-Generation AMD A-Series APU is a major step forward in every performance and

power dimension, allowing users to enjoy a stunning experience without having to give up the things that matter to them most. This experience doesn't stop at mainstream notebooks. It carries over into affordable ultrathin form factors featuring the latest in AMD Radeon™ graphics."

The Growing AMD Accelerated Application Ecosystem
The developer ecosystem continues to gravitate to the unmatched level of compute and unique processing capabilities of the APU as more than 100 applications and games are now accelerated by AMD APUs. The 2nd-Generation AMD A-Series APU gives users superior Web-based video experience thanks to plug-ins for Google Chrome, Firefox and Internet Explorer 9 that make it easy for consumers to turn on AMD Steady Video technology(6). Recent applications that have been optimized for use on AMD A-Series APUs include Adobe Photoshop CS6, WinZip 16.5 and VLC Media Player. AMD A-Series APUs are also well-positioned to take advantage of the upcoming transition to the Windows® 8 operating system.

"We are excited for the introduction of the 2nd-Generation AMD A-Series APU and are confident it will continue the great work Microsoft and AMD have done together on the A-Series APU," said Aidan Marcuss, senior director, Windows Business Planning, Microsoft Corp. "We look forward to seeing the A-Series APU in action with Windows 8 to deliver a great user experience across a variety of hardware."

For developers who want to engage in the industry's move toward heterogeneous computing, the upcoming AMD Fusion12 Developer Summit will offer them a unique opportunity to enhance their knowledge base. More information on AFDS can be found here.

Unmatched Mobility
With more than 12 hours of 'resting' battery life, AMD is now an industry leader in notebook battery-life performance. The 2nd-Generation AMD A-Series APU delivers increased levels of performance, while consuming half the power as its predecessor.

These gains can be attributed to the new power-optimized "Piledriver" CPU core, as well as to AMD Start Now technology, which is designed to maximize system responsiveness by quickly entering and exiting low power states. With AMD Start Now, the computer resumes from sleep mode in as few as two seconds and boots to the desktop in as few as 10 seconds.(7)

In ultrathin form factors, AMD enables an uncompromised visual experience thanks to a power-efficient and premium AMD Radeon graphics engine. Consumers can expect to see ultrathin notebooks based on dual-core 17-watt and quad-core 25-watt AMD A-Series APUs. These products will be easily identifiable by aluminum-styled VISION Technology stickers at a range of competitive price points.

Best-in-class Entertainment
As more and more people turn to their computers as the hub for their entertainment, the visual aspect of computing becomes ever more important. To enhance these capabilities, AMD created the AMD HD Media Accelerator -- a unique set of technologies that enable the best video quality on a PC. Key features of the HD Media Accelerator include:

- *AMD Perfect Picture HD* - An image, video processing and display technology that automatically makes images and video better with color vibrancy adjustments, edge enhancement, noise reduction and dynamic contrast fixes;(8)

- *AMD Steady Video Technology* - A technology that enables smooth playback of jittery video content with a single button click thanks to plug-ins for popular Web browsers and multimedia applications;(6)
- *AMD Quick Stream Technology* - A new technology that prioritizes video streaming on PC systems for a smooth, virtually uninterrupted video stream;(9)
- *True HD video chat* with up to four people at once;
- *AMD Video Converter* - A video compression engine for fast conversion and sharing of media files across multiple formats and devices;
- *Full decode support* for H.264, MPEG-2, VC-1, MVC, DivX and WMV.

Gaming Leadership
The 2nd-Generation AMD A-Series APU builds on AMD's legacy of gaming leadership with an increase in graphics performance of up to 56% over the previous generation(4) and support for:

- *AMD Eyefinity Technology* - For the first time, this immersive technology is available from an APU without the need for a discrete graphics card;(10)
- Performance-leading *DirectX® 11 graphics architecture* and 1080p gaming a life-like level of detail;
- *AMD Radeon dual graphics* support that delivers a performance boost of up to 75 percent when adding a discrete graphics card to the APU.(11) The AMD Radeon dual graphics option also offers support for DirectX® 9 for older game titles, and uses new AMD CrossFire™ Technology Profiles for easier updates.

Availability and Technical Details
AMD has a record number of design wins with companies like Acer, Asus, HP, Lenovo, Samsung, Sony and Toshiba based on our 2nd-Generation AMD A-Series APUs and VISION Technology from AMD, with mainstream and ultrathin notebooks as well as embedded solutions, available beginning today.

AMD A-Series Mainstream Notebook APUs

APU Model	AMD Radeon(TM) Brand	CPU TDP	CPU Cores	CPU Clock (Max/ Base)	AMD Radeon(TM) Cores	GPU Clock (Max/Base)	L2 Cache	Max DDR3
A10-4600M	HD 7660G	35W	4	3.2GHz/ 2.3GHz	384	686MHz/ 497MHz	4MB	DDR3-1600 DDR3L-1600 DDR3U-1333
A8-4500M	HD 7640G	35W	4	2.8GHz/ 1.9GHz	256	655MHz/ 497MHz	4MB	DDR3-1600 DDR3L-1600 DDR3U-1333
A6-4400M	HD 7520G	35W	2	3.2GHz/ 2.7GHz	192	686MHz/ 497MHz	1MB	DDR3-1600 DDR3L-1600 DDR3U-1333

AMD A-Series Ultrathin Notebook APUs

APU Model	AMD Radeon(TM) Brand	CPU TDP	CPU Cores	CPU Clock (Max/ Base)	AMD Radeon(TM) Cores	GPU Clock (Max/Base)	L2 Cache	Max DDR3

A10-4655M	HD 7620G	25W	4	2.8GHz/2.0GHz	384	497MHz/360MHz	4MB	DDR3-1333 DDR3L-1333 DDR3U-1066
A6-4455M	HD 7500G	17W	2	2.6GHz/2.1GHz	256	424MHz/327MHz	2MB	DDR3-1333 DDR3L-1333 DDR3U-1066

Desktops systems and component channel parts will be available later this year.

Supporting Resources

- Find photos and other support materials on the 2nd-Generation A-Series APU landing page
- Read recent AMD news at http://blogs.amd.com/fusion/
- Check out demos of AMD APUs on the AMD YouTube Channel
- Follow all news from the AMD on Twitter at @AMD_Unprocessed

About AMD
AMD (NYSE: AMD) is a semiconductor design innovator leading the next era of vivid digital experiences with its groundbreaking AMD Accelerated Processing Units (APUs) that power a wide range of computing devices. AMD's server computing products are focused on driving industry-leading cloud computing and virtualization environments. AMD's superior graphics technologies are found in a variety of solutions ranging from game consoles, PCs to supercomputers. For more information, visit http://www.amd.com.

(1) Testing by AMD Performance Labs. Battery life calculations based on average power on multiple benchmarks and usage scenarios. Twelve hours of battery life based on Windows Idle (740 min./12:20 hours) as a resting metric. All battery life calculations are based on using a 6-cell Li-Ion 62.16Whr battery pack at 98% utilization for Windows Idle, PowerMark and 96% utilization for 3DMark06 workload, video playback and YouTube video streaming; and 92% utilization for Blu-ray playback. AMD defines "all-day" battery life as 8+ hours of continuous use as measured on the Windows Idle test. TRN-3 and TRN-4

(2) The 2012 AMD A-Series APUs (formerly codenamed "Trinity") deliver up to double (2X) the performance per watt of AMD's previous generation APU platform (formerly codenamed "Llano").Testing performed by AMD Performance Labs. The score for the 2012 AMD A6-4455M (ULV-17w) on the "Pumori" reference design for PC Mark Vantage Overall benchmark was 4300 while the 2011 AMD A6-3400M (35w) on the "Torpedo" reference design scores 4545. The 3DMark Vantage Performance score for the same configurations was 2012 AMD A6-4455M (ULV) 2355 and the 2011 AMD A6-3400M scored 2292. Configurations: AMD A6-4455M with AMD Radeon™ HD 7500G Graphics, 4G DDR3-1600 (Dual Channel) Memory and Windows 7 Home Premium 64-bit. Reference platform "Torpedo" with the AMD Quad-Core A6-3400M APU, with AMD Radeon™ HD 6520G graphics, 4 GB (2x2GB) DDR3-1333Mhz system memory, and Windows 7 Home Premium 64-bit. TRN-110

(3) Testing performed by AMD Performance Labs. The score for the 2012 AMD A10-4600M on the "Pumori" reference design for PC Mark Vantage Productivity benchmark shows an increase of up to 29% over the 2011 AMD A8-3500M on the "Torpedo" reference design. The AMD A10-4600M APU has a score of 6125 and the 2011 AMD A8-3500M APU scored 4764. Scores rounded to the nearest whole number. All performance data for 2012 Mainstream platform for CPU and GPU are based on ES Silicon (Engineering Samples) on the Pumori reference design. Projections assume A10-4600M with AMD Radeon™ HD 7660 Graphics, 4G DDR3-1600 (Dual Channel) Memory and Windows 7 Home Premium 64-bit. The AMD reference design "Torpedo" consisted of the 2011 AMD A8-3500M with AMD Radeon™ HD 6620G Graphics, 4GB DDR3-1333 and Windows 7 Home Premium 64-bit.TRN-1

(4) Testing performed by AMD Performance Labs. The score for the 2012 AMD A10-4600M APU on the "Pumori" reference design for 3D Mark Vantage Performance showed an increase of up to 56% over the 2011 AMD A8-3500M APU. The AMD A10-4600M APU has a score of 4352 and the 2011 A8-3500M has a score of 2788. Scores rounded to the nearest whole number. TRN-2

(5) GFLOPs calculations developed by AMD Performance Labs measuring compute capacity for the AMD A10-5800K desktop APU which is 736 GFLOPS. AMD GFLOPs calculated using GFLOPs = CPU GFLOPs + GPU GFLOPs = CPU Core Freq. (3.8GHz) X Core Count (4) X 8 FLOPS + GPU Core Freq.(800MHz) X DirectX® 11 capable Shader Count (384) X 2 FLOPS.

(6) AMD Steady Video is a technology designed to eliminate shakes and jitters during the playback of home video. Users may turn on this technology via the AMD Catalyst Control Center™ or the VISION Engine Control Center application. AMD Steady Video will work with content that can run on Adobe® Flash® Player 10.2 (and later versions) or on any player which has been programed to use AMD's decode acceleration (DXVA) engine. AMD Steady Video is not designed to (a) isolate overlays, logos or captions, or (b) improve the playback of letter boxed, premium/commercial, or interlaced content. AMD Steady Video is only recommended for use with videos that contain unwanted shakes and jitters.

(7) Testing conducted by AMD Performance Labs as of 2/17/2012 on a "Pumori" reference system configured with an AMD A6-4400M APU with AMD Radeon™ HD 7520G Graphics, 4GB DDR3-1600 and an Intel 120GB 510 Series 120GB SSD running Windows® 7 SP1 64bit. The tested platform was able to resume from sleep mode in 1.73 seconds. Actual time to resume will vary based on operating system, APU model, driver, disk drive and memory speed. Testing conducted by AMD Performance Labs as of 2/17/2012 on a "Pumori" reference system configured with an AMD A6-4400M APU with AMD Radeon™ HD 7520G Graphics, 4GB DDR3-1600 and an Intel 510 Series 120GB SSD running Windows® 7 SP1 64bit. The tested platform was able to power-on to the Window desktop in 10.3 seconds. Actual time to power-on to desktop will vary based on operating system, APU model, driver, disk drive and memory speed.

(8) AMD Perfect Picture HD is a an image, video processing and display technology that features advanced de-interlacing, dynamic contrast adjustment, color vibrancy, noise reduction and edge enhancement that provides brilliant colors and sharp images for smooth playback of Blu-ray and other HD content on your PC

(9) AMD Quick Stream is a technology designed to prioritize video streaming on PC systems for a smooth, uninterrupted video stream and will work on all 2012 Mainstream and Essential Desktop and Notebook APU-based PCs with internet access. It is implemented at the

discretion of OEMs on select PCs. Not all features may be supported on all systems -- check with your system manufacturer for specific model capabilities and supported technologies.

(10) AMD Eyefinity technology works with games that support non-standard aspect ratios, which is required for spanning across multiple displays. To enable more than two displays, additional panels with native DisplayPort™ connectors, and/or DisplayPort™ compliant active adapters to convert your monitor's native input to your cards DisplayPort™ or Mini-DisplayPort™ connector(s), are required. AMD Eyefinity technology can support up to 6 displays using a single enabled AMD Radeon™ GPU with Windows Vista® or Windows® 7 operating systems -- the number of displays may vary by system design, and you should confirm exact specifications with the applicable manufacturer before purchase. SLS ("Single Large Surface") functionality requires an identical display resolution on all configured displays.

(11) Testing conducted by AMD performance labs using DiRT 3™@ 1280x1024, DirectX®11 under medium settings. The AMD A10-5800K APU with a AMD Radeon™ HD 6570 in AMD Dual Graphics mode scored and average of 92.62 fps while the AMD A10-5800K APU with only the AMD Radeon™ HD 6570 Graphics card enabled scored an average of 52.63. Test configuration with AMD Dual Graphics enabled and disabled: Pre-production engineering sample AMD A10-5800K APU with AMD Radeon™ HD 7660D Graphics, AMD Radeon™ HD 6570 graphics card, 2x4GB DDR3-1866, 7200rpm Hard Drive with Windows® 7 64 bit on AMD "Annapurna" reference design. TRD-18

Image Available: http://www2.marketwire.com/mw/frame_mw?attachid=1983298

Contact:
Sarah Youngbauer
AMD Public Relations
512-602-5280
Email Contact

Source: Advanced Micro Devices