

## **New AMD A-Series Processors Bring Faster Speeds, High Core Count and AMD Radeon HD 7000 Series Graphics to Do-It-Yourself PC Enthusiasts and Gamers**

*— With up to 4 “Piledriver” Cores, 4.2 GHz of Processing Speed and the New FM2 Infrastructure, the Latest AMD APUs Enable an Immersive Microsoft Windows 8 experience and an Easy Upgrade Path —*

**SUNNYVALE, Calif. — Oct. 2, 2012 —** [AMD](#) (NYSE: AMD) today announced retail and distribution channel availability of its second generation [AMD A-Series Accelerated Processing Units](#) (APUs) for desktop, small form-factor and home theater PCs. These new APUs target do-it-yourself (DIY) PC builders, mainstream gamers and value-added resellers who want to upgrade their PC infrastructure with affordable performance, discrete-level graphics, multiple cores and fast processing for outstanding responsiveness. The second generation desktop AMD A-Series APU is available at prices ranging from \$53 to \$122 USD<sup>1</sup>. Compared to similarly priced competitive offerings, the new APUs offer more cores, more speed, best-in-class entertainment experiences and an easy upgrade path based on a stable socket infrastructure<sup>2</sup>. AMD APU users also gain access to the [AMD AppZone](#) and a comprehensive list of accelerated applications that leverage the full compute power of the APU. With hardware-accelerated support for DirectX<sup>®</sup> 11 on AMD Radeon™ graphics and AMD Eyefinity technology delivering a more immersive experience, the AMD A-Series APUs are the ideal solution for systems running the highly-anticipated Microsoft Windows<sup>®</sup> 8 and today’s Microsoft Windows<sup>®</sup> 7 operating systems.

“The new AMD A-Series APU is ideal for anyone looking for a new desktop or home theater PC with leading performance for the dollar,” said Leslie Sobon, corporate vice president, Desktop and Component Products, AMD. “The combination of processing speed, multiple compute cores and discrete-level graphic capabilities on the second generation AMD A-Series APU make it an excellent platform for the gamer and PC enthusiast alike.”

### **More Cores, More Speed and More Value**

The second generation AMD A-Series APU provides higher performance and capabilities over the first generation:

- More than 700 GFLOPS of compute performance<sup>3</sup>;
- Up to 4.2 GHz max frequency;
- Unlocked Central Processing Unit (CPU) with [AMD OverDrive](#)™ software for up to 6.5 GHz of extreme overclocking performance<sup>4</sup>.

With CPU and Graphics Processing Unit (GPU) AMD Turbo Core 3.0 Technology, the second generation AMD A-Series APU performance is improved by allowing frequencies of the GPU and CPU cores to automatically increase. PC users looking for ultimate control tweaking their system can use the AMD OverDrive software application to overclock both the

CPU and the GPU, and also increase the memory frequency to deliver a superior gaming experience.

### **Better Video and Gaming with AMD Radeon Graphics**

The second generation AMD A-Series APUs include AMD Radeon™ HD 7000 Series graphics, providing high-performance discrete-class graphics. These APUs extend AMD's legacy of gaming leadership with a significant increase in both CPU and GPU performance<sup>5</sup> over the previous generation and support for:

- AMD Eyefinity Technology – The only multi-monitor technology that supports a single-surface Windows 8 experience across up to four monitors. For the first time, this immersive technology is available from an APU without the need for a discrete graphics card;
- Industry-leading, high-performance DirectX 11 graphics architecture capable of delivering full 1080p gaming for a life-like level of detail;
- AMD Radeon™ Dual Graphics support that delivers a performance boost of up to 75 percent when a discrete graphics card is added to the APU<sup>6</sup>. The AMD Radeon Dual Graphics option also offers support for DirectX® 9 and 10 for older game titles, and uses new AMD CrossFire™ Application Profiles for easier updates.

### **Easy Upgrade Path**

The second generation desktop AMD A-Series APUs combine AMD's next-generation "Piledriver" CPU architecture with AMD Radeon HD 7000 Series graphics on the new FM2

motherboard infrastructure to deliver a host of new features and a brilliant visual experience, all on a platform with future upgrade capability.

Three different chipset options are available on motherboards with the FM2 socket, each with a different feature set: AMD A55, A75 and A85X. These chipsets support AMD Memory Profiles which enable graphics memory to run at 1866 MHz, with up to a 266 MHz boost for faster performance.

### **Industry Support**

**ASRock:** "The new A-Series APUs are a perfect combination of performance and price for PC enthusiasts," said James Lee, ASRock vice president of Sales and Marketing. "The ASRock FM2 motherboards come with a complete product line supplying those enthusiasts to achieve the highest level of computing. Besides, with ASRock smart X-Boost Technology, overclocking the APU can become a one-button process.

**Asus:** "Second generation AMD A-Series APUs are ideal for desktop PC builders and mainstream gamers," said Joe Hsieh, general manager of Asus' Motherboard Business Unit.

“Our award-winning motherboards outfitted with these leading processors provide customers an immersive experience, easy upgrade path and affordable price.”

**ECS:** “The performance, price and upgrade options of the second generation AMD A-Series APUs should make these products wildly popular with a wide-range of PC enthusiasts who are building a new system or about to upgrade his or her system,” said David Chien, vice president of ECS Channel Business Unit. “We look forward to supplying those enthusiasts with the stability and performance features of our special gold-plated A85F2-A Golden FM2 motherboard.”

**GIGABYTE:** “With AMD’s second generation APU platform, GIGABYTE is bringing several exclusive technologies to an AMD platform for the first time, including our new Ultra Durable 5 technology and Digital Power delivery,” commented Henry Kao, vice president of GIGABYTE Motherboard Business Unit. “These technologies help ensure GIGABYTE FM2 series motherboards will get the absolute maximum graphics and processing performance from AMD’s new and exciting A-Series APUs.”

**MSI:** “Combining second generation AMD A-Series APUs with MSI’s new FM2 mainboards creates a platform that offers an unprecedented level of flexibility and gaming performance, especially with easy-to-use features like MSI OC Genie,” said Ted Hung, MSI vice president of Mainboard Department. “We are ready to impress the market with stable, high performance products that are a great home for AMD’s new APUs.”

### Details and Availability

Starting today, the following AMD A-Series APUs are available from AMD’s channel partners and retailers worldwide:

AMD A-Series Component Desktop APUs									
APU Model	AMD Radeon™ Brand	TDP	CPU Cores	CPU Clock (Max/Base)	AMD Radeon™ Cores	GPU Clock	L2 Cache	Max DDR3 Memory Support	Suggested Retail Pricing
A10-5800K	HD 7660D	100W	4	4.2 GHz / 3.8 GHz	384	800 MHz	4MB	1866 MHz	\$122
A10-5700	HD 7660D	65W	4	4.0 GHz / 3.4 GHz	384	760 MHz	4MB	1866 MHz	\$122
A8-5600K	HD 7560D	100W	4	3.9 GHz / 3.6 GHz	256	760 MHz	4MB	1866 MHz	\$101
A8-5500	HD 7560D	65W	4	3.7 GHz / 3.2 GHz	256	760 MHz	4MB	1866 MHz	\$101
A6-5400K	HD 7540D	65W	2	3.8 GHz / 3.6 GHz	192	760 MHz	1MB	1866 MHz	\$67

A4-5300	HD 7480D	65W	2	3.6 GHz / 3.4 GHz	128	724 MHz	1MB	1600 MHz	\$53
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### Supporting Resources

- Find photos and other support materials on the [second generation A-Series APU](#)
- Read a [DIY blog](#) from AMD's John Taylor
- 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>.

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<sup>1</sup> AMD suggested retail pricing

<sup>2</sup> The Quad-core AMD A10-5800K using AMD Turbo Core technology has a maximum frequency of 4.2 GHz with a suggested retail price of \$122 as compared to the Dual-core Intel Core i3 2120 / 3220 with a maximum frequency of 3.3 GHz (Intel Turbo Boost technology is not available for the Intel Core i3 family of processors) and a retail price of \$124.99. Intel pricing on TigerDirect.com on 9/26/2012: <http://www.tigerdirect.com/applications/SearchTools/item-details.asp?EdpNo=3734679&csid=61>

<sup>3</sup> 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 TRD-38

<sup>4</sup> 6.5 GHz reached on an AMD A10-5800K with AMD Radeon™ HD 7660D Graphics, 2x4GB DDR3 1866, Windows 7 64bit using LN2 cooling @ 1.85V. AMD's product warranty does not cover damages caused by overclocking, even when overclocking is enabled with AMD hardware or software.

<sup>5</sup> Testing conducted by AMD performance labs using PCMark®7 from Futuremark® benchmark, the AMD A10-5800K APU with AMD Radeon™ HD 7660D Graphics scored 4079 while the AMD A8-3850 APU with AMD Radeon™ HD 6550D Graphics scored 3226 . All scores rounded to the nearest whole number.

<sup>6</sup> Testing conducted by AMD performance labs using DiRT 3™ @ 1280x1024, DirectX®11 under medium settings. The AMD A10-5800K APU with an AMD Radeon™ HD 6570 in AMD Dual Graphics mode scored an 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