January 13, 2011

Canadian Contributions Power Revolutionary AMD Fusion Processors

"Made in Canada" Technology Represents Largest Shift in PC Technology in 40 Years, Delivers Big Experiences, Sleek Designs, and All-Day Battery Life(iii) in Thin and Light Notebooks

MARKHAM, ON -- (MARKET WIRE) -- 01/13/11 -- Today at the Ontario Science Centre, AMD (NYSE: AMD) celebrated the launch of a new class of accelerated processor that combines more compute capabilities than any processor in the history of computing. Featuring major technology contributions from AMD's Markham, Ontario R&D facility, the AMD Fusion Family of Accelerated Processing Units (APUs) incorporate multi-core CPU (x86) technology, and a powerful DirectX® 11-capable graphics and parallel processing engine within the design.

"AMD Fusion technology enables significant breakthroughs in personal computing. It represents a major advancement in processor technology that will open up exciting new experiences for consumers," said Ben Bar-Haim, general manager, AMD Canada. "Our AMD R&D facility in Markham, Ontario has played a pivotal role in bringing the remarkable AMD Fusion technology to life and we are incredibly proud that the AMD Canada team's contribution will help power computers throughout Canada and around the world."

Vital contributions from Canadian engineers, including video processing and display technology development, were integral to making AMD Fusion processors a success. In February 2010, AMD Canada was awarded a five-year grant of $56.4 million CAD from the Ontario Ministry of Economic Development and Trade under Ontario's Next Generation of Jobs Fund. The grant helped to fund R&D activities by AMD's Markham-based engineers in the development of the AMD Fusion family of processors, related software infrastructure and integrated computing platforms. In turn, and resulting from this grant, AMD has invested nearly $150 million CAD in AMD Fusion processor-related R&D activities in Markham since April 2009, and created nearly 200 new AMD Fusion-related jobs in 2010.

"Innovation is the key to prosperity in the global economy and the government of Ontario is proud to have partnered with AMD in developing the groundbreaking AMD Fusion APU," said Minister of Economic Development and Trade, Sandra Pupatello. "The AMD Fusion APU solidifies the GTA's growing worldwide reputation as a hub for the digital computing industry."

"It is fitting that AMD chose the Science Centre for this announcement," said Lesley Lewis, CEO, Ontario Science Centre. "Every day, we encourage our visitors of all ages to consider the numerous ways in which science and technology affect their lives and our future."

AMD Fusion processors: In context

- If one were to build a Fusion chip out of 1940s-style vacuum tubes, it would cover an area equivalent to about 70 square kilometres of the city of Toronto -- from the Don Valley Parkway, over to the 427 and as far north as Eglinton Avenue.
- To power that, one would need the equivalent of 40 gigaWatts of electricity, enough power for 20 million people, or roughly 80 CANDU nuclear reactors -- the same power generated by over 13 Pickering power plants.
- By contrast, the AMD E-Series Fusion APUs have an area of 75 sq mm -- smaller than a typical thumbnail or alpha key on a PC keyboard -- and require less power than a compact fluorescent light bulb(i).

AMD Fusion APU-based Systems

- The AMD Fusion chip delivers an unprecedented experience starting with thin and light notebooks, as well as small form factor desktops: stutter-free HD video playback, breakthroughs in computational horsepower to handle the most demanding applications(ii), and all-day battery life(iii).
- New desktop, notebook and HD netbooks based on AMD Fusion processors are now available at affordable price points from Acer, Asus, Dell, Fujitsu, HP, Lenovo, MSI, Samsung, Sony and Toshiba.
- Tablets and embedded designs based on AMD Fusion APUs are expected be available later in Q1 2011.

Driving Innovation in Canada

- AMD's Canada operations are based in Markham, Ontario. As AMD's largest R&D centre outside the United States, AMD Canada has a total workforce of more than 1,800 people, including regular, co-op, temporary and contract employees.
- During the past five years, AMD has invested more than $1 billion dollars in R&D activities in Canada.
- Since AMD acquired ATI Technologies Inc., Canadian engineers have filed more than 250 patent applications related to AMD Fusion technology development.

Supporting Resources

- Visit the AMD Fusion website for more information about AMD Fusion APUs
- Check out AMD Fusion APUs on the AMD Unprocessed YouTube Channel
- Read about recent AMD Fusion news on the AMD Fusion blog
- Follow all news from AMD on Twitter at @AMD_Unprocessed
- AMD Canada digital b-roll: http://www.digitalnewsagency.com/story/view/3865-amd-b-roll/all

About AMD
AMD (NYSE: AMD) is a semiconductor design innovator leading the next era of vivid digital experiences with its ground-breaking AMD Fusion Accelerated Processing Units (APUs). AMD's graphics and computing technologies power a variety of devices including PCs, game consoles and the powerful computers that drive the Internet and businesses. For more information, visit http://www.amd.com.

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(i) The AMD E-Series APU runs on 18 watts. The General Electric 47709 Compact Fluorescent Lamp runs on 26 watts: http://www.google.com/products/catalog?q=compact+fluorescent+light+bulbs&hl=en&rls=com.microsoft:en-us:IE-SearchBox&prmd=ivns&resnum=3&wrapid=tlif129253262401 31&um=1&ie=UTF-8&cid=11335943099082676418&ei=qHsKTfOnHo3ksQPwwdG5Cg&sa=X&oi=product_catalog_result#
(ii) Based on performance per watt comparisons between AMD Fusion APUs and the AMD Athlon™ II P320 CPU combined with the AMD Mobility Radeon™ HD 4250 GPU. In testing conducted by AMD performance labs, AMD Fusion APUs demonstrated the following: A-Series -- up to approximately 500 GFLOPS; E-Series/C-Series -- up to approximately 90 GFLOPS at 18/9 W. In comparison, the AMD Athlon™ II P320 CPU and AMD Mobility Radeon HD 4250 GPU deliver a combined total of 74 GLOPS at 38 W.
(iii) In testing conducted by AMD performance labs the 2011 Low Power platform reference design "Zacate" E-350 demonstrated up to 658 minutes or 10.96 hours "all-day" battery life while idle and up to 258 minutes or 4.34 hours as an "active" metric using 3DMark '06. The reference design consisted of an AMD Dual-Core Processor E-350, 1.6Ghz 2C, 4GB (2x2GB) DDR3-1066 system memory 11.6"

display @ 1366×768, Windows 7 Ultimate 64-bit, 62Whr Li-Ion battery. The 2011 AMD C-50 Dual-Core Accelerated Processor demonstrated up to 735 minutes or 12.15 hours "all-day" battery life while idle and up to 378 minutes or 6.18 hours as an "active" metric using 3DMark '06. The reference design consisted of a an AMD Dual-Core processor C-50 1.0Ghz 9W, 2GB (1x2GB) DDR3-1066 system memory, AMD Radeon™ HD 6250 Graphics with 10.1" @ 1024×600, 6-cell Li-Ion, 62.2 Whr battery. LED Backlight Windows 7 Home Premium 64-bit. All testing performed using a 6-cell Li-Ion, 62.2 Whr battery. AMD defines "all day" battery life as 8+ hours of idle time.

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