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AMD Kicks-Off 2019 Offering Complete Mobile Portfolio: New Ryzen™, Athlon™, and A-Series Processors for Ultrathin, Mainstream, and Chromebook Laptops

— Built to deliver best mobile computing experiences with unmatched feature sets, powerful compute performance, and battery life to get you through the day[1,2] —

— Radeon™ Software Adrenalin to bring unparalleled visual experiences to AMD Ryzen processors with Radeon Graphics starting this quarter —

LAS VEGAS, Jan. 06, 2019 (GLOBE NEWSWIRE) -- CES 2019 -- Today, AMD (NASDAQ: AMD) announced the first members of its 2019 mobility line-up encompassing all notebook segments: 2nd Gen AMD Ryzen 3000 Series Mobile Processors powering ultrathin and gaming notebooks; AMD Athlon 300 Series Mobile Processors powering mainstream notebooks with the fast and efficient "Zen"[3] core; and optimized 7th Gen AMD A-Series processors, elevating performance for mainstream Chromebooks. In addition, AMD announced that starting this quarter, gamers, creators and enthusiasts will be able to install Radeon™ Software Adrenalin software to bring the latest GPU features and game optimizations to all systems powered by AMD Ryzen™ Processors with Radeon™ Graphics.

"Users expect mobile PCs that excel at both everyday tasks and compute-heavy experiences, and with our latest mobile processor portfolio AMD offers exactly that across all levels of the market," said Saeid Moshkelani, senior vice president and general manager, Client Compute, AMD. "Notebook users want to experience the latest modern features while streaming, gaming, or finishing work faster. Enabling breakthrough entertainment experiences, AMD is pleased to enable a wide range of AMD powered notebooks than ever that deliver on those expectations with blazing fast performance, rich graphics, and long battery life."

2nd Gen Ryzen Mobile Processors: Featuring world's fastest processor for ultrathin laptops[4]

Built on 12nm manufacturing technology, new AMD Ryzen™ 3000 Series Mobile Processors deliver best-in-class performance[4], a brilliant entertainment experience, and state-of-the-art features as well as offering impressive performance improvements well above the competition[4]

- The new AMD Ryzen mobile processors deliver;
  - engaging and entertaining features like Wake on Voice, Modern Standby, smooth PC gaming, and is 4K HDR Streaming-capable[5]
  - up to 10 hours of video playback battery life[1]

° AMD Ryzen 7 3700U can edit media up to 29% faster than the Intel Core i7-8550U[6], and the AMD Ryzen 5 3500U can load websites up to 14% faster than the Intel Core i5-8250U[7]

- Consumers will be able to purchase the first 2nd Gen Ryzen mobile powered notebooks starting in Q1, with more systems expected to launch throughout 2019. These new notebooks will be coming through Acer, ASUS, Dell, HP, Huawei, Lenovo, and Samsung this year.
- Starting in Q1 2019, AMD plans to provide regular Radeon Software Adrenalin updates for all Ryzen Processors with Radeon Vega graphics via AMD.com, enabling frequent support for new games, new features, improved performance and more robust stability.
- AMD is also offering "Zen"[3] -based Athlon Mobile Processors bringing consumers more choice, enabling mobile computing to meet nearly any budget, slated to be available from global OEMs in early 2019.

Product Model	Cores/ Threads	TDP	Boost/Base Freq.	Radeon Graphics	GPU Cores	Max GPU Freq.	L2+L3 Cache
AMD Ryzen™ 7 3750H	4C/8T	35W	4.0/2.3 GHz	Vega	10	1400 MHz	6MB
AMD Ryzen™ 7 3700U	4C/8T	15W	4.0/2.3 GHz	Vega	10	1400 MHz	6MB
AMD Ryzen™ 5 3550H	4C/8T	35W	3.7/2.1 GHz	Vega	8	1200 MHz	6MB
AMD Ryzen™ 5 3500U	4C/8T	15W	3.7/2.1 GHz	Vega	8	1200 MHz	6MB
AMD Ryzen™ 3 3300U	4C/4T	15W	3.5/2.1 GHz	Vega	6	1200 MHz	6MB
AMD Ryzen™ 3 3200U	2C/4T	15W	3.5/2.6 GHz	Vega	3	1200 MHz	5MB
AMD Athlon 300U	2C/4T	15W	3.3/2.4 GHz	Vega	3	1000 MHz	5MB

7th Generation A-Series Processors: Versatile A-Series processor for Google Chromebooks

- The 7th Gen AMD A-Series processors deliver ideal computing experiences, from fluid web browsing to effortless everyday productivity, social media, streaming and web gaming. The AMD A6-9220C processor provides;
  ° up to 23% faster web browsing and up to 24% faster web application performance than the Intel Pentium N4200 and Celeron N3350, respectively[8,9]
  ° up to 3.2X faster email performance and up to 74% higher office application productivity than the Intel Pentium N4200 and Celeron N3350, respectively[8,9]
  ° up to 42% faster photo editing performance and up to 43% faster web gaming experiences than the Intel Pentium N4200 and Celeron N3350, respectively[8,9]
- Starting with the Acer Chromebook 315 and HP Chromebook 14, leading global OEMs are scheduled to release several AMD powered Chromebooks in 2019 delivering fast and efficient computing, with battery life that keeps pace with the consumer's needs.

Product Model	Cores/ Threads	TDP	Boost/Base Freq.	Radeon Graphics	GPU Cores/Shaders	Max GPU Freq.	L2 Cache
AMD A6-9220C	2C/2T	6W	2.7/1.8 GHz	R5 Series	3 /192 (GCN 1.2)	720 MHz	1MB
AMD A4-9120C	2C/2T	6W	2.4/1.6 GHz	R4 Series	3 /192 (GCN 1.2)	600 MHz	1MB

At CES 2019, Dr. Lisa Su, president and CEO, AMD is delivering a keynote address, scheduled for Wednesday, January 9 at 9:00 a.m. in the Venetian Palazzo Ballroom. Also, for all CES 2019 attendees, the latest AMD mobile portfolio and technologies are available for hands-on viewing at Club AMD located in the Venetian Expo Sands Titan 2303 – 2305 from January 8th to 11th. Visit www.amd.com/en/events/ces for more information.

Partner Quotes

"Working in partnership with AMD, we are excited to introduce a line of fast, responsive, reliable Chromebooks powered by AMD A-Series processors," said Chris Chiang, vice president of product management, Acer Pan America. "The new Acer Chromebook 315 delivers great performance to let users do more with the growing selection of Android apps and Chrome extensions, thanks to award-winning Radeon graphics for a visually stunning experience and AMD processors that will tackle tasks quickly and reliably."

"ASUS is dedicated to delivering the most innovative hardware for gamers of all levels," said Vivian Lien, Head of Global Marketing for Gaming and Chief Marketing Officer at ASUS North America. "We're excited to announce the new ASUS FX505 and 705DY TUF Gaming notebooks, the first laptops powered by AMD's Ryzen 7 3750H and Ryzen 5 3550H processor and discrete Radeon RX560X graphics, suited for high performance gaming on the go. It's a unique solution that delivers best-in-class gaming experiences for a wide variety of users."

"We are excited to offer AMD's 2nd Gen Ryzen Mobile and Radeon solutions in our mainstream Inspiron 5000 laptops and 2-in-1s in the coming months, giving our customers even more choice for their computing experiences," said Ray Wah, Senior Vice President, Consumer and Small Business Product Group, Dell. "AMD's latest Ryzen mobile processors with Radeon Vega Graphics are expected to deliver multi-tasking performance users want, while also enabling the modern PC features they need."

"We created Chromebooks to build better computing for everyone, and as Chromebooks continue to evolve, this goal remains the same," said John Solomon, vice president of Chrome OS, Google. "By providing Chromebooks with AMD A-Series processors, customers will have an even broader choice of affordable Chromebooks for their everyday needs."

"Chromebooks continue to be a rapidly growing market, where customers are looking for differentiated designs and amazing features to power their work and play," said Kevin Frost, vice president, Consumer PCs, HP Inc. "With the new HP Chromebook 14, HP is excited to partner with AMD on the creation of the first AMD-powered Chrome OS device, providing excellent performance, an enriched entertainment experience, and the best of Google and Chrome OS to access millions of Android apps on Google Play filled with Android apps to do everything in a stylish PC."

"As work-life integration goes mainstream and people seek increasing flexibility in their lifestyles, they need accessible tools to stay productive and entertained anytime, anywhere," said Johnson Jia, Senior Vice President and General Manager of Lenovo Intelligent Devices Group's Consumer PCs and Smart Devices. "Designed for users' evolving needs, the new Lenovo IdeaPad S540 and IdeaPad S340 laptops powered by the latest AMD Ryzen mobile processors balance great performance with portability – letting people get things done on the go, on their own terms."

Supporting Resources

- Learn more about AMD Ryzen Mobile Processors
- Learn more about AMD Athlon Mobile Processors
- Learn more about AMD A-Series Processors for Chromebook
- Learn more about AMD at 2019 CES
- Become a fan of AMD on Facebook
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business; the markets in which AMD's products are sold are highly competitive; AMD's issuance to West Coast Hitech L.P. (WCH) of warrants to purchase 75 million shares of its common stock, if and when exercised, will dilute the ownership interests of its existing stockholders, and the conversion of the 2.125% Convertible Senior Notes due 2026 may dilute the ownership interest of its existing stockholders, or may otherwise depress the price of its common stock; uncertainties involving the ordering and shipment of AMD's products could materially adversely affect it; the demand for AMD's products depends in part on the market conditions in the industries into which they are sold. Fluctuations in demand for AMD's products or a market decline in any of these industries could have a material adverse effect on its results of operations; AMD's ability to design and introduce new products in a timely manner is dependent upon third-party intellectual property; AMD depends on third-party companies for the design, manufacture and supply of motherboards, software and other computer platform components to support its business; if AMD loses Microsoft Corporation's support for its products or other software vendors do not design and develop software to run on AMD's products, its ability to sell its products could be materially adversely affected; and AMD's reliance on third-party distributors and AIB partners subjects it to certain risks. Investors are urged to review in detail the risks and uncertainties in AMD's Securities and Exchange Commission filings, including but not limited to AMD's Quarterly Report on Form 10-Q for the quarter ended September 29, 2018.

About AMD

For more than 45 years AMD has driven innovation in high-performance computing, graphics and visualization technologies — the building blocks for gaming, immersive platforms and the datacenter. Hundreds of millions of consumers, leading Fortune 500 businesses and cutting-edge scientific research facilities around the world rely on AMD technology daily to improve how they live, work and play. AMD employees around the world are focused on building great products that push the boundaries of what is possible. For more information about how AMD is enabling today and inspiring tomorrow, visit the AMD (NASDAQ: AMD) website, blog, Facebook and Twitter pages.

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[1] Testing by AMD performance labs as of 12/4/2018. "Battery life" defined as hours of continuous usage before the system automatically shuts down due to depleted battery. Video playback tested according to Microsoft WER methodology, while "general usage" is tested via MobileMark 14. Results presented in hours, in order of: 1st Gen AMD Ryzen™ 7 2700U Mobile Processor (100%) vs. 2nd Gen AMD Ryzen™ 7 3700U Mobile Processor. General Usage: Ryzen™ 7 2700U: 8.1 hours vs. Ryzen™ 7 3700U: 12.3 hours (51% longer) Video Playback: Ryzen™ 7 2700U: 6.9 hours vs. Ryzen™ 7 3700U: 10 hours (40% longer) Ryzen™ 7 2700U Test System: Lenovo IdeaPad 530s, Ryzen™ 7 2700U, 2x4GB DDR4-2400, Radeon™ Vega [10] Graphics (driver 23.20.768.0), 1920x1080 AUO 403D 13.9" panel, 512GB Toshiba KBG30ZMT512G SSD, 45Whr battery, 150 nits brightness, Windows® 10 x64 RS4. Ryzen™ 7 3700U Test System: AMD Reference Motherboard, AMD Ryzen™ 7 3700U, 2x4GB DDR4-2400, Radeon™ Vega [10] Graphics (driver 23.20.768.0), AUO B140HAN05.4 14" panel, 256GB WD Black WD256G1XOC SSD, 50Whr battery, 150 nits brightness, Windows® 10 x64 RS5. Results may vary with drivers and configuration. RVM-164

[2] AMD defines All-Day Battery Life as 8+ hours of continuous use when measured with the Windows Idle Test. GD-1

[3] The information contained herein is for informational purposes only and is subject to change without notice. Timelines, roadmaps, and/or product release dates shown herein are plans only and subject to change. “Zen” is codename for AMD architecture, and is not a product name. GD-122

[4] "Processor for ultrathin notebooks" defined as 15W typical TDP. "Class" for "best-in-class" defined as an ultrathin notebook <20mm Z-height. Testing conducted by AMD performance labs as of 12/02/2018. Cinebench R15 nT ("CPU"): Core i5-8250U vs. Ryzen™ 5 3500U: 524 vs. 651 (24%/1.24X faster for AMD); Core i7-8565U vs. Ryzen™ 7 3700U: 619 vs. 688 (11%/1.11X faster for AMD). 3DMark® Time Spy ("GPU"): Core i5-8250U vs. Ryzen™ 5 3500U: 399 vs. 907 (127%/2.27X faster for AMD); Core i7-8565U vs. Ryzen™ 7 3700U: 444 vs. 967 (118%/2.18X faster for AMD). 50:50 Average of GPU and CPU: Core i5-8250U vs. Ryzen™ 5 3500U: (0.5×1.24+0.5×2.27) = 1.75X faster for AMD; Core i7-8565U vs. Ryzen™ 7 3700U: (0.5×1.11+0.5×2.18) = 1.645X faster for AMD. Core i7-8565U Test System: Dell Inspiron 7586, 2x4GB DDR4-2400, Samsung 850 EVO SSD, Intel Graphics HD 620 (driver 24.20.100.6287), Windows® 10 Pro x64 (build 1803). Core i5-8250U Test System: HP Spectre 13t, 2x4GB LPDDR4-2133, Samsung 850 EVO SSD, Intel Graphics HD 620 (driver 24.20.100.6287), Windows® 10 Pro x64 (build 1803). AMD Ryzen™ Test System: AMD Reference Motherboard, 2x4GB DDR4-2400, Radeon™ Vega [10] Graphics (driver 18.41-181105a), Windows® 10 Pro x64 (build 1803). Results may vary with configuration and drivers. RVM-155

[5] HDR content requires that the system be configured with a fully HDR-ready content chain, including: graphics card, monitor/TV, graphics driver and application. Video content must be graded in HDR and viewed with an HDR-ready player. Windowed mode content requires operating system support. GD-96

[6] Testing by AMD performance labs as of 12/4/2018. “Edit media” defined as a series of GPU-accelerated Adobe Photoshop image transformation filters. Core i7-8550U vs. Ryzen™ 7 3700U result: 74.53 seconds (100%) vs. 52.9 seconds (129%/1.29X/29% faster). Core i5-8250U vs. Ryzen™ 5 3500U result: 77 seconds (100%) vs. 56 seconds (127%/1.27X/27% faster). AMD Ryzen™ Test System: AMD Reference Motherboard, 2x4GB DDR4-2400, Radeon™ Vega [10] Graphics (driver 18.41-181105a), Windows® 10 Pro x64 (build 1803). Intel Test System: HP EliteBook 830 G5, Core i7-8550U/i5-8550U, 2x4GB DDR4-2400, Intel Graphics HD 620 (driver 22.20.16.4799), Windows® 10 Pro x64 (build 1803). Results may vary with configuration and drivers. RVM-157

[7] Testing by AMD performance labs as of 12/4/2018. “Web browsing” defined as PCMark® 10 Essentials web browsing sub-test. Core i5-8250U vs. Ryzen™ 5 3500U result (higher is better): 6086 (100%) vs. 6988 (114%/1.14X/14% faster). AMD Ryzen™ Test System: AMD Reference Motherboard, AMD Ryzen™ 5 3500U, 2x4GB DDR4-2400, Radeon™ Vega [10] Graphics (driver 18.41-181105a), Windows® 10 Pro x64 (build 1803). Intel Test System: HP EliteBook 830 G5, i5-8550U, 2x4GB DDR4-2400, Intel Graphics HD 620 (driver 22.20.16.4799), Windows® 10 Pro x64 (build 1803). Results may vary with configuration and drivers. RVM-156

[8] Testing done by AMD performance labs Oct 20, 2018 with a system powered by AMD A-Series processors and populated with 2x4GB DDR4 2400 GHz RAM. Speedometer 2.0 was run to measure Web Browsing, Bullet Force WebGL game was used to measure Gaming performance, PCMark 10 Writing was used to measure email performance, PCMark 10 Work 1.0 was used to measure productivity, WebXPRT 3 was run to measure Web App performance, PCMark 10 Photo Editing was tested to measure Photo Editing performance.

All results were based on an average of 3 runs. The AMD A6-9220C scored 31.55 (23% faster), 43 fps (34% faster), 15174 (148% faster) 10726.5 (43% faster), 83 (9% faster), and 13033.5 (4% faster) respectively. The Intel Pentium N4200 scored 25.7, 32 fps, 6116, 7526, 76, 12560 respectively. PC manufacturers may vary configurations and drivers yielding different results. SRN-91

[9] Testing done by AMD performance labs Oct 20, 2018 with a 2x4GB DDR4 2400 GHz RAM, Android N. Speedometer 2.0 was run to measure Web Browsing, Bullet Force WebGL game was used to measure Gaming performance, PCMark 10 Writing was used to measure email performance, PCMark 10 Work 1.0 was used to measure productivity, WebXPRT 3 was run to measure Web App performance, PCMark 10 Photo Editing was tested to measure Photo Editing performance. All results were based on an average of 3 runs. The AMD A6-9220C scored 31.55 (23% faster), 43 fps (43% faster), 15174 (3.2X faster), 10726.5 (74% faster), 83 (24% faster), and 13033.5 (42% faster) respectively. The Intel Celeron N3350 scored 25.46, 30 fps, 4651, 6169, 67, 9157 respectively. PC manufacturers may vary configurations and drivers yielding different results. SRN-92

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