



## PRESS RELEASE

### ***X-ES Announces 4<sup>th</sup> Generation Intel® Core™ i7 Processor-based VPX, VME, cPCI, XMC, and COM Express SBCs***

Middleton, WI – June 4, 2013

Extreme Engineering Solutions, Inc. (X-ES) has introduced its 3U VPX, 6U VPX, XMC, 3U CompactPCI, 6U CompactPCI, 6U VME, and COM Express Single Board Computers (SBCs) based on the 4th generation Intel® Core™ i7-4700EQ processor (formerly codenamed "Haswell"). Rob Scidmore, CEO of X-ES, emphasizes X-ES's commitment to being first to market with a wide selection of 4th generation Intel Core i7 processor-based products, "We are proud to continue our leadership in the industry by providing a full line-up of embedded form factors based on Intel's latest processor architecture."

X-ES has utilized its extensive experience in designing and manufacturing high-performance Intel SBCs for commercial, industrial, and rugged platforms to produce 4th generation Intel Core i7 processor-based products for high reliability embedded applications. "By integrating 4th generation Intel® Core™ i7 processors into some of the smallest embedded form factors and the most demanding of environments, X-ES is highlighting the performance strengths of the new microarchitecture," said Sam Cravatta, Product Line Manager, Intel® Intelligent Systems Group. Ben Klam, VP of Engineering at X-ES adds, "We are utilizing our unique understanding of Intel architecture to provide highly reliable 4th generation Intel Core i7 processor-based products that maximize I/O capabilities, operate at extreme low temperatures, and provide industry-leading cooling for unequaled high-temperature performance."

X-ES's line up of conduction and air-cooled products based on the 4th generation Intel Core i7 processor include the [XCalibur4500](#) 6U cPCI, the [XCalibur4530](#) 6U VME, and the XCalibur4540 6U VPX modules, which maximize memory capacity and I/O capabilities and add configurability with two PMC/XMC sites. X-ES provides the [XPedite7570](#) 3U VPX and the XPedite7530 3U cPCI modules, which are ideal for smaller aerospace and vehicle platforms that require maximum processing performance and I/O capabilities with the flexibility of PMC and XMC support. For applications with severe size, weight, and power (SWaP) challenges, such as Unmanned Aerial Vehicles (UAVs) and Unmanned Ground Vehicles (UGVs), X-ES also offers the small [XPedite7501](#) XMC and XPedite7550 Rugged COM Express modules.

X-ES has recognized the significant maintenance and diagnostics advantages achieved through utilizing the remote configuration and management feature, Intel® Active Management Technology (Intel® AMT), within X-ES's previous generation Intel Core i7 processor-based products. As a result, X-ES is continuing to offer those advantages to its customers by including Intel® AMT 9.0 support for its 4th generation Intel Core i7 processor-based products. Additionally, improvements within the 4th Generation Intel Core i7 processor include increased raw processing performance per watt, hardware-based memory encryption with Intel® AES New Instructions (AES-NI), and increased floating-point and integer performance utilizing Intel® Advanced Vector Extensions 2.0 (AVX 2.0). The graphics processing unit (GPU) in the 4th generation Intel Core i7 processor has also been enhanced, adding additional execution units and up to a 24% increase in raw performance. The 4th generation Intel Core i7 processor also supports OpenCL 1.2, enabling it to perform as a general-purpose graphics processing unit (GPGPU).

Contact X-ES to find out more about how their SBCs, based on the 4<sup>th</sup> generation Intel Core i7 processor, can solve your processing and I/O needs.

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