



PRESS RELEASE

Intel® Atom™ E3800 XMC/PMC and Rugged COM Express® from X-ES

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Extreme Engineering Solutions, Inc. (X-ES) introduces the [XPedite8101 XMC/PMC](#) and [XPedite8150 Rugged COM Express®](#) modules based on the Intel® Atom™ E3800 (formerly Bay Trail-I) processor family. Atom E3800 processors provide excellent computational performance and I/O functionality for their power profile and size. They are low power system-on-chip (SoC) processors with integrated graphics and support for up to four cores operating at up to 1.91 GHz. Along with best-in-class performance-per-watt, the E3800 family supports extremely low operating temperatures, and its power-efficient 22 nm technology enables operation in the most demanding high-temperature environments.

X-ES Advantages

With [Built-In Test \(BIT\) support](#), true configuration and obsolescence management, class III PCB fabrication and assembly, [environmental qualification](#) per MIL-STD-810, as well as many other features, X-ES E3800-based modules are designed and tested for maximum reliability in the most demanding environments and applications that require long life cycles. Also, instead of using a legacy BIOS-based bootloader, X-ES's E3800-based modules support industry-leading boot times and drastically simplify system security by employing Intel's Firmware Support Package (FSP) to power their open source coreboot bootloaders.

X-ES supports the Atom E3800 processor in industry-standard XMC/PMC and Rugged COM Express modules, enabling system integrators to develop a single x86-based application on modular hardware solutions that can be tailored for the performance and environmental constraints of each platform. The E3800-based XPedite8101 XMC/PMC and XPedite8150 Rugged COM Express modules are ideal for platforms with more stringent Size, Weight, Power, Cost (SWaP-C) and thermal constraints. For platforms with larger power budgets and higher performance requirements, X-ES provides a number of modules based on the latest Intel Core i7 processors, such as the [XPedite7501 XMC](#), [XPedite7570 3U VPX](#), [XCalibur4540 6U VPX](#), and [XPedite7450 Rugged COM Express](#) modules.

XPedite8101 XMC/PMC

The XPedite8101 is an Intel® Atom™ E3800-based XMC/PMC available in conduction- and air-cooled configurations. It supports up to 8 GB of DDR3 ECC SDRAM and up to 32 GB of SLC NAND flash, as well as a Dual-Mode DisplayPort video interface and two Gigabit Ethernet ports. The XPedite8101's compact XMC/PMC design can be hosted on a number of other form factors, such as 3U and 6U VPX, 3U and 6U CompactPCI (cPCI), VME, and rugged Small Form Factor (SFF) systems including the [XPand6200 Series](#).

XPedite8150 and XPedite8152 Rugged COM Express Mini

The XPedite8150 is a Rugged COM Express module based on the Intel® Atom™ E3800 series of processors. It is compliant with the COM Express Mini form factor (55 mm x 84 mm) and provides up to 4 GB of DDR3 ECC SDRAM. The XPedite8150 also supports an enhanced Type 10 pinout with one Dual-Mode DisplayPort, one Embedded DisplayPort, and two Gigabit Ethernet interfaces. The [XPedite8152](#) provides the same SDRAM density and a compatible pinout with the XPedite8150, but it extends the size of the module to 55 mm x 109 mm to include support for up to 32 GB of SLC NAND Flash and another external SATA interface. Both the XPedite8150 and XPedite8152 can be used in the XPand6000 Series rugged Small Form Factor (SFF) systems, as well as the [XPand1400 Series](#) development systems.

Wind River VxWorks and Linux Board Support Packages, as well as Microsoft Windows drivers, are available for the XPedite8101, XPedite8150, and XPedite8152. These products support the E3827, E3826, E3815, E3845, and E3825 processors from the E3800 series. The E3800 series is the 4th generation Atom processor from Intel and was formerly known as the Bay Trail-I platform and Valleyview processor.

X-ES will be displaying our Intel® Atom™ E3800-based modules at the [2014 Intel Developer Forum \(IDF14\)](#) in San Francisco, September 9th through the 11th. Stop by and visit us at IDF in booth 661 of the Intelligent Systems Community, or contact us today to find out more about using the Intel® Atom™ for your application.

About X-ES — Extreme Engineering Solutions, Inc. (X-ES), a 100% U.S.A.-based company, designs and builds single board computers, I/O boards, power supplies, backplanes, chassis, and system-level solutions for embedded computing customers. X-ES offers cutting-edge performance and flexibility in design, plus an unparalleled level of customer support and service. For further information on X-ES products or services, please visit our website: www.xes-inc.com or call (608) 833-1155.

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