



Press Release

For immediate release

*For further information:
Dave Barker, Marketing Director*

(281) 644-0248

dbarker@xes-inc.com

Extreme Engineering Satisfies Demanding Military SWaP Requirements with 8.8 Pound XPand4200 ½ ATR System

Middleton, WI –June 15, 2010 – Extreme Engineering Solutions (X-ES) is shipping the 8.8 pound XPand4200, a sub-½ ATR, forced air-cooled enclosure for conduction-cooled modules. The XPand4200 is designed to reduce the Size, Weight, and Power (SWaP) of deployed military systems. A fully populated XPand4200 weighs less than 15 pounds and is ideal for C4ISR applications in vehicles such as UAVs, helicopters, planes, tanks and light armored vehicles, HMMWVs, and UGVs.

The XPand4200 conducts heat from conduction-cooled modules to heat exchangers, where the heat is dissipated to the ambient environment by forced-air cooling. Compared to similar systems, the cooling capability of the XPand4200 is significantly higher due to a heat exchanger integrated into the top of the unit. Because the design supports conduction-cooled boards in an air tight enclosure, the XPand4200 provides enhanced shock and vibration protection and isolation of the boards from the outside environment.

The system measures 4.88" (W) x 6.0" (H) x 13.5" (D) and weighs only 8.8 pounds. The XPand4200 has an optional removable memory module attachment that supports the XPort6191 Solid State Disk (SSD) Removable Storage Module, with 64 GB of storage capacity. With the memory module attachment the height increases to 7.62" and the weight to 11.1 pounds. Up to six conduction-cooled, 0.8" pitch 3U VPX, 3U cPCI, or power supply modules can be configured into the XPand4200. Additionally, the XPand4200 can be configured to meet custom I/O requirements with conduction-cooled PMC / XMC modules available from X-ES or third parties.

The [XPand4200](#) can be populated with 3U VPX or cPCI X-ES single-board computers, such as:

- [XPedite7370](#) Intel® Core™ i7 processor OpenVPX SBC
- [XPedite5470](#) Freescale eight-core P4080 processor OpenVPX SBC
- [XPedite7130](#) Intel® Core™2 Duo processor cPCI SBC
- [XPedite5370](#) Freescale MPC8572E PowerQUICC® III processor cPCI SBC
- [XPedite5170](#) Freescale MPC8640D processor OpenVPX SBC

"Initial customers are very excited because they recognize that the small footprint and volume of the XPand4200, coupled with the increased compute- and I/O-density of our 3U VPX offerings,

saves them 50-67% in SWaP over a 6U system,” said Jeff Porter, Senior Systems Engineer at Extreme Engineering Solutions. “One customer said the XPand4200 has allowed them to decrease a 35-pound two chassis solution to a single chassis weighing less than 15 while increasing both functionality and performance.”

The XPand4200 supports Gigabit Ethernet, graphics, RS-232/RS-422, MIL-STD-1553, ARINC 429, as well as custom conduction-cooled PMC/XMC I/O through D38999 circular connectors. An optional front-panel USB port provides system monitoring and maintenance capabilities. There are several power supply options, supporting up to 200 W from a MIL-STD-704 28V DC or 115V AC input, as well as internal EMI filtering and hold-up for up to 60-ms at 200 W.

The XPand4200 has design flexibility to accommodate unique I/O requirements with standards-based products. Because each system has a unique combination of processing, I/O, power, and storage components, please contact X-ES sales to discuss your application and hardware requirements.

[About Extreme Engineering Solutions, Inc.](#) Extreme Engineering Solutions, Inc. (X-ES) designs and builds chassis, single-board computers, I/O, power, backplane, and system-level products within the embedded computer industry. 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 at www.xes-inc.com or call (608) 833-1155.

Data Sheet: <http://xes-inc.com/Products/XPand4200/Datasheet/XPand4200ds.pdf>

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