Press Release

Dave Barker, Marketing Director
(281) 644-0248
dbarker@xes-inc.com

X-ES Introduces First 12-Volt-Centric VITA 62 Power Supply: Conduction-Cooled 3U VPX XPm2120

Middleton, WI – September 13, 2011 – Extreme Engineering Solutions (X-ES) announces the immediate availability of the XPm2120, a conduction-cooled, VITA 62, 3U VPX power supply that takes a MIL-STD-704 input voltage of 28 V-DC and provides up to 300W of power on the 3.3-volt, 5-volt, and 12-volt rails at 90% efficiency with 12-volt as the primary power distribution rail in the system. Designed for rugged, deployed military applications, the slim 0.8-inch pitch XPm2120 integrates MIL-STD-461E EMI filtering.

The XPm2120 can operate over a wide range of input voltages from 16 V to 50 V steady-state while maintaining up to 300 W of isolated output power. It provides up to 15 A of current on the 3.3-volt rail, 15 A on the 5-volt rail, and 25 A on the 12-volt rail in a compact, 3U VPX form factor. With support for current sharing, two XPm2120 power supplies can be connected in parallel to provide increased power output.

The XPm2120 features include:

- 3U VPX form factor
- 0.8-inch pitch
- VITA 62 pinout
- Conduction cooling
- MIL-STD-461E EMI filtering
- Intelligent Platform Management Interface (IPMI) controller
- Load sharing support with another XPm2120

Using 12 V, as opposed to 5 V, for the primary distribution rail in a system has several advantages for system designers. First, higher voltage distribution sources, such as 12 V, can utilize smaller copper power planes within the backplane and modules because of lower steady state currents and the resulting decreased distribution losses.

Secondly, susceptibility to current transients is greatly reduced when using 12V as the distribution power rail because there is much less current draw, and 12 V can dip much further than 5 V before being out of tolerance. Also, there are very few, if any, devices other than the on-card power supplies that use 12 V directly, so if the 12-volt rail does dip, it will not lead to component failure.

Finally, because higher voltage distribution sources (such as 12 V) allow for smaller copper power planes, the board's layer count, its complexity, and its cost can be decreased. With higher voltage distribution sources, less point-of-load capacitance is required to suppress localized current transients, saving valuable real estate on payload modules.

"Being first to market with a 12-volt-centric VITA 62 power supply is further evidence of X-ES's VPX leadership role," states Bret Farnum, VP of sales at X-ES. "To ensure that our customers get

the full benefit of 12-volt power distribution, X-ES also provides compatible 3U VPX payload modules that utilize 12-volt input power."

VITA 62 is a power supply standard that defines a standard form factor and pinout. The form factor is compatible with VITA 46 (VPX) and VITA 48 (VPX-REDI). With the advent of VITA 62 power supplies, VPX users are no longer locked into custom, proprietary power supplies; they have the ability to purchase interchangeable power supplies from multiple vendors. The XPm2120 was designed to the VITA 62 draft standard.

About X-ES — 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: www.xes-inc.com or call (608) 833-1155.

Data Sheet: http://www.xes-inc.com/assets/products/files/XPm2120-DS.pdf
Press Photo: http://xes-inc.com/assets/photos/content/082136_XPm2120.jpg