
ERICSSON POWER INTERFACE MODULE SIMPLIFIES LOW-EMI DESIGN IN ATCA APPLICATIONS

- 600W quarter-brick power interface module (PIM) converter optimised for Advanced Telecom Computing Architecture (ATCA) based server applications
- Low-EMI design meets CISPR Class B with minimal external components
- Module delivers 12A output current at 80°C with 1.5m/s (300 LFM) airflow
- Extensive range of energy monitoring functionalities via I²C or PMBus

Ericsson Power Modules today announced the PIM4610PD, an extension of its popular 3E* Power Interface Module (PIM) family that are compliant with the industry-standard quarter-brick footprint. The new module has been optimised especially to simplify design in blade server applications based on ATCA and PICMG 3.7 systems. The module is also highly suited to server and storage systems in any industrial, telecom and data communications application that employs either distributed power or intermediate bus voltage architectures.

Importantly, the employment of Ericsson's low-EMI design techniques in the PIM4610PD ensures that minimal external filtering is needed to meet the CISPR Class B EMC standards required for Information and Communications Technology systems. Ripple and noise characteristics have been minimised, while circuit design has been simplified leading to reduced component count and system costs without compromising performance.

Based on Ericsson's leading-edge energy-optimisation platform, the PIM4610PD operates over an input range of 36V to 75V. The module also offers industry-leading high-power performance delivering 864W with a 54V input, 768W at 48V, and 600W at 37.5V. Efficiency performance is again industry leading – offering up to 98.8% at 600W for the main unit – resulting in reduced energy and cooling costs.

Martin Hägerdal, Head of Ericsson Power Modules, commented: “The PIM4610PD employs Ericsson’s low-EMI design capabilities, which means that an absolute minimum of external filtering components are required by customers developing ATCA-based blade server applications. Overall, the package of advanced features offered by this new product, such as digital monitoring capability via the PMBus, world-class efficiency and high-power handling characteristics for applications where there is minimal airflow, all combines to make the PIM4610PD a compelling product for power engineering architects looking to save energy and cost.”

The PIM also offers built-in digital monitoring and an extensive range of energy-monitoring functionalities via its I²C/PMBus interface. Other features of the PIM4610PD include: protection against input transients, reverse polarity, over-temperature, over-current, input under-voltage and inrush current. Additionally, the PIM has a configurable feature that enables a well-controlled shutdown procedure. The feature enables de-assertion of the Power Good pin when it determines that input power is below a certain level, enabling the protection of semiconductor devices such as CPUs and FPGAs.

The module also has integrated hot-swap functionality and hold-up charge and discharge management. The inputs also include dual power feeds with OR’ing functionality and ‘enable’ signaling. Further specifications include: management power output of 3.3V and up to 7A; an MTBF of 2.66 million hours, according to Telcordia SR-332 Issue 2, Method 1, and isolation of 2250Vdc, which meets the latest IEC/EN/UL62368-1 safety standard.

Available in the industry-standard quarter-brick format, measuring 57.9 x 36.8 x 21.33mm (2.28 x 1.45 x 0.84in), the PIM4610PD has been built to the highest quality design and manufacturing standards, which have been employed by Ericsson for many years and deliver extremely high levels of confidence to customers.

** Enhanced Performance, Energy Management, and End-user Value are the key benefits delivered by Ericsson’s range of 3E digitally controlled power modules.*

NEWS

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FOR FURTHER INFORMATION, PLEASE CONTACT

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