

## **Ericsson's third-generation POLA™ modules improve performance and save board space**

**Ericsson Power Modules' PMN and PMP series point-of-load modules, based on the latest generation of high dynamic-response control IC with embedded TurboTrans™ functionalities, are third-generation POLA™ products. As point-of-load (POL) power modules, they address a wide range of applications – from industry to avionics – including applications in the Information & Communication Technology (ICT) industry.**

The modules are the PMN 5118U, rated at 4.5-5.5V<sub>in</sub>, 0.7-3.6V @ 30A; the PMN 8118UW, rated at 5.5-14V<sub>in</sub>, 0.7-3.6V @ 30A; and the PMP 5818UW, featuring a rating of 4.5-14V<sub>in</sub>, 0.7-5.5V @ 16A. The wide input range and fast transient response of these modules makes them particularly suitable for the new generation of DSP and microprocessors that demand such performance levels.

Additionally, and as a result of their TurboTrans™ features, the modules can be operated with far fewer output capacitors than traditional point-of-load devices, reducing the amount of board space required by voltage regulators, and resulting in a much higher power density than conventional units.

Telecom and datacom (router, servers and interfaces) are the prime areas of deployment for the PMN and PMP, but the performance of these products makes them ideal for powering FPGA, DSP and other ASICs requiring a fast transient response and high efficiency at a competitive price.

The increase in processors' switching frequencies to new levels, associated with the development of multi-core technology that brings higher board functionalities have been significant factors in creating and driving the demand for these latest POL products that combine ultra fast response time and high power density.

Additionally, the introduction of modulated dynamic bus voltage (M-DBV) adjusted in real time to optimize global efficiency requires the use of wide input-range modules that are not compromised in other areas of their performance.

As third-generation POLA™ products, the modules offer a fully interoperable second source in accordance with POLA™ specifications.

With higher power and current density than previous generations of POL, the modules reduce the need for board space, and thanks to their highly efficient topology, PMN and PMP help reduce energy consumption.

With their wide input-voltage range, PMN and PMP offer a high degree of flexibility to designers when choosing voltage regulators, especially when applications are migrating to modulated dynamic bus voltage (M-DBV), where the input voltage varies widely from 6V to 12V.

The wide input range also offers simplicity to designers, meaning only one code needs to be approved, no matter what on-board bus voltage is required, simultaneously simplifying inventory management, reducing indirect costs and reducing total cost of ownership.

The modules' use of TurboTrans™ technology to achieve a faster response to transient load means they require fewer output capacitors than traditional products for better performance. With Ericsson Power Modules' PMN and PMP, designers will save cost and board space while gaining a reduction of up to 50 percent lower peak deviation when compared with conventional voltage regulators.

With 1.5 percent output voltage regulation, PMM and PMP are the best option for current and future generations of ASIC, FPGA, DSP and other processors.

Apart from the benefits of interoperability offered by POLA, based on TurboTrans™ technology, PMN and PMP offer ultra-fast transient response while delivering up to 30A in a product footprint size of less than 5 sq cm.

*Ericsson is shaping the future of Mobile and Broadband Internet communications through its continuous technology leadership. Providing innovative solutions in more than 140 countries, Ericsson is helping to create the most powerful communication companies in the world.*

#### **FOR FURTHER INFORMATION, PLEASE CONTACT**

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#### **About Ericsson Power Modules**

Ericsson Power Modules is a supplier of world-class DC/DC power modules for distributed power architectures. With its global design, development, manufacturing and sales network, Ericsson Power Modules is a leading supplier of power solutions to meet customer demands for high performance.