

Highly efficient DC/DC converter is optimised for RF power applications reducing costs and increasing reliability

Designed to provide high quality on-board power solutions in RF power amplifier systems and other distributed power applications, Ericsson Power Modules' PKJ-N DC/DC converter offers high performance and reduced cost. The future proofed converter is DfE and RoHS compliant and therefore avoids requalification costs when soon to be introduced legislation comes about. The converter's electrical design is specifically adapted to fulfil RF load requirements.

Driving the demand for this type of device is the high volume market need for RF power amplifiers for 2&3G radio base stations. In these applications the PKJ4216N excels where efficiency, reliability, step response, environmental concerns and cost are of great concern.

The family presently consists of two products; 30.2V/8.3A/250W, and 28.2V/11A/310W. At 91.5% at half load and 91% at full load, the converters are highly efficient and thus offer a longer system lifetime and reduced cost of energy consumption, reducing the total cost of ownership.

Ericsson PM's Metal-to-Metal technology means significantly improved thermal management and performance at reduced cost. The converter uses an industry standard half-brick design with widely used pin-out configuration for simple integration into existing amplifier designs, and to provide secure sourcing.

The fully featured converters include output over-voltage, input under-voltage, over-temperature, and output short circuit protection, together with soft-start, remote sense, remote control and output voltage adjust functions.

Keeping radiated EMI to a minimum, the PKJ4316N includes a ground plane in the PCB area under the DC/DC converter. This approach returns switching noise to ground as directly as possible, with improvements to both emissions and susceptibility.

With 1500Vdc input to output isolation, the converter meets isolation requirements equivalent to basic insulation according to IEC/EN/UL60950, and offering high reliability, the PKJ-N boasts a 3 million hours predicted MTBF.

Offering excellent performance and quality at a competitive price, the converters are designed according to mobile network RFPA requirements.

Ericsson PM's philosophy and manufacturing processes embrace conservative design rules, design reviews and product qualifications, plus the high competence of an engaged work force. Infant mortality or early failures in the products are screened out and they are subjected to ATE-based final tests.

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 the customer demand for high performance.