

DC/DC converters raise power levels in RFPA applications

Bringing higher power to its award-winning PKJ 4000 series of DC/DC converters, Ericsson Power Modules' PKJ 4316 API is rated at a high 350W. The fully featured converter offers designers high quality and a cost-effective solution for demanding RFPA applications.

In total, three new converters have been added to the PKJ 4000 range. The aforementioned 350W unit rated at 48Vin/28.2V/12.4A is joined by the PKJ 4316 P rated at 48Vin/28.2V/11A 310Wout, and the PKJ 4216N PI that is rated at 48Vin/30.2V/8.3A 250Wout. Available in the industry-standard half-brick format, these high-power, cost-efficient, high-efficiency units operate over an input voltage range of 35 to 75Vdc.

Factors driving demand for this type of product are the need for high power, high efficiency, good thermal performance, cost efficiency, and high reliability in RFPA (radio frequency power amplifier) applications.

The truly environmentally friendly units are RoHS compliant and are based on a mechanical design using metal to metal to attach the base plate, giving high thermal conductivity, good electrical isolation and excellent mechanical strength. The converters feature the standard RFPA height of 12.7mm.

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

Keeping radiated EMI to a minimum, the converters include 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 converters meet isolation requirements equivalent to basic insulation according to IEC/EN/UL60950; offering high reliability, they have a predicted MTBF (mean time between failure) of 3 million hours.

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

Ericsson Power Modules' philosophy and manufacturing processes embrace conservative design rules, design reviews and product qualifications, plus the high competence of a committed workforce. 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.