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## ERICSSON INTRODUCES 200W POWER MODULE WITH EXCELLENT THERMAL CAPABILITIES FOR RADIO APPLICATIONS

- New DC/DC power module series features ultra-wide output voltage range from 15V to 33V for radio frequency power amplifier applications
- Enhanced thermal layout improves power dissipation for cold-wall assembling
- Adjustable voltage range means ability to handle wide range of power transistors and reduce power consumption when system is in sleep mode
- New module delivers 95% typical efficiency at 30V output half load

Ericsson has launched a new 200W DC/DC converter module in an eighth-brick format that has been designed for radio-frequency power amplifier (RFPA) applications and supplying the voltage to power transistors that are used in new generation of integrated radio amplifiers.

Importantly, the new PKB4216C series module offers high flexibility with its ultra-wide adjustable output voltage from 15 to 33V, which makes it possible to power a wide range of power transistors and also reducing voltages when the RF power amplifier has been into sleep mode, thereby decreasing power consumption. Delivering power up to 200W and an output current up to 6.67A, the new PKB4216C is also ideal to power RFPA applications that use semiconductor technologies such as Laterally Diffused Metal Oxide Semiconductor (LDMOS).

In addition to powering RFPA applications, the output voltage range meets specifications as defined by the Antenna Interface Standards Group (AISG), which mandates a 10 to 30V input voltage range to power active RF antennas. The module's voltage range also covers 24V and 28V, making it suitable for its use in industrial applications interconnected to ICT equipment that requires either a sub-24V or 28V supply from the mains rectifier.

A key feature of the PKB4216C series is that it has been designed for deployment in environments where only natural convection will be available. The series' mechanical design has been optimized to reduce thermal resistance to an absolute minimum between power dissipating components and the cold-wall conduction-cooling element, thereby delivering outstanding thermal performance for applications that have limited airflow such as integrated antennas.

Available in an industry-standard eighth-brick footprint with dimensions of 2.3 x 0.89in and a low-profile height of just 0.34in (58.4 x 22.7 x 8.6mm), the module delivers 95% typical efficiency at 30V output half load, guaranteeing low power dissipation and reduced energy consumption. Operating over a 36V to 75V input-voltage range, the PKB4216C series meets requirements for normal input-voltages ranges in 48 and 60V(DC) systems.

Patrick Le Fèvre, Marketing and Communication Director of Ericsson Power Modules, says: "In many highly integrated applications such as the latest integrated radio power amplifiers, there is limited opportunity for cooling via ventilation, therefore it becomes more necessary to employ thermal conduction via 'cold wall' techniques, exchanging heat with the external environment. The new 200W PKB4216C employs advanced techniques developed by Ericsson and has been especially optimized for conduction cooling, quickly transporting heat away from system components in applications such as RFPAs."

Offering an MTBF (Mean-Time-Before-Failure) of 3.53 million hours, the PKB4216C series meets safety requirements according to IEC/EN/UL 60950-1 and offers input/output isolation of 1500V DC. The series also includes many protection features including output-over-voltage protection (OVP), input-under-voltage shutdown, over-temperature protection (OTP), output short-circuit protection and pre-bias start-up capability.

The PKB4216C series is available for both through-hole (PI version) and surface-mount (SI version) assembly.



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### FOR FURTHER INFORMATION, PLEASE CONTACT

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