

## **Ericsson eighth brick DC/DC converter offers quarter brick performance for downsizing and upgrading**

**Compared to existing products available on the market, the output power of Ericsson Power Modules' eighth-brick PKB-B DC/DC converter is considerably higher. This is an important benefit when customers are looking for higher power in a smaller packaging than traditional quarter-brick, or to achieve higher power from a standard eight-brick when upgrading boards for higher performance.**

The PKB4204B PI is rated at 12V at 20A and is available in three versions: through-hole, baseplate and surface-mount. The converter features an input voltage range of 36V to 75V and provides up to 240 watts of power or up to 20A of output current in an industry standard footprint and pin out. It offers a typical 25% cost savings compared to a standard 240W regulated quarter-brick.

The product is aimed at existing quarter-brick customers aiming to power higher demanding applications without re-designing boards for larger products (e.g. quarter-brick), saving time and cost and making the transition process faster and simpler. Offering 240W in a compact 2.07 sq in of area, the converter occupies approximately 38% less board space than an industry standard IBC quarter brick product and will find favour with customers facing challenging board space optimization issues and/or migrating from quarter-brick to eight-brick without compromising performance.

The most important application areas for the PKB4204B PI are datacom/networking, wireless networks, optical network equipment, server and data storage, ATCA and fan trays.

The converter meets the insulation requirements of EN60950 and comes complete with vital industry standard features such as remote on/off, over-temperature protection, output over-current and over-voltage protection, and input under-voltage protection.

The converter's high efficiency reduces customer input power, reduces cooling required, and improves product derating in demanding environments. It is rated at over 95% efficiency at 53Vin from 25% to 75% load. Its high reliability figure of 1.3 million hours MTBF is a result of conservative design, high efficiency, and good attention to thermals. The PKB-B series uses a very advanced 14 layer PCB with a copper thickness of 3oz to achieve high efficiency and good thermal performance.

The electrical design is a line regulated full-bridge configuration with the control circuit on the primary side. Both the transformer and the output

inductor windings are integrated in the PCB. The primary side is internally fed with an isolated flyback converter.

With creative design technology and optimization of component placement, the converter offers outstanding electrical and thermal performance, as well as high reliability under stressful operating conditions.

End-customers are permanently adding functionalities to applications, requiring more power per board while expecting a reduction of space allocated to the on-board power sources. With the already released quarter brick intermediate bus converter PKM-B and the in development sixteenth brick PKU-B, the eighth brick PKB-B completes Ericsson's line regulated IBC product portfolio.

*Ericsson is the world's leading provider of technology and services to telecom operators. The market leader in 2G and 3G mobile technologies, Ericsson supplies communications services and manages networks that serve more than 195 million subscribers. The company's portfolio comprises mobile and fixed network infrastructure, and broadband and multimedia solutions for operators, enterprises and developers. The Sony Ericsson joint venture provides consumers with feature-rich personal mobile devices.*

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*For more information, visit [www.ericsson.com](http://www.ericsson.com) or [www.ericsson.mobi](http://www.ericsson.mobi).*

#### **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.