

Ericsson Power Modules announces new low cost broad spectrum DC/DC converter

By delivering 35W output power, and with its wide input range of 18 to 72V, Ericsson Power Modules' PKU-E DC/DC converter provides flexibility to customers where their applications require more than the company's 15W PKR, and less than the 50W delivered by the original PKU.

The industry standard sixteenth-brick, PKU-E is designed for distributed power architectures in telecom-systems requiring compatibility with both battery voltages used in mobile radio applications (24V) and fixed applications using 48V. It is also a perfect solution for customers addressing industrial and transportation segments where voltages could vary by as much as 20 to 60V, and for other applications where a single product could accommodate a wide range of input voltages from 18 to 72 volts.

Factors driving the demand for this type of product are smaller footprint size, high operating efficiency, price, and its versatile, wide input range 18-72Vin. With its low profile of just 7.5mm, the PKU-E is ideal for applications with tight board space and low profile requirements.

An SMD option uses the Floating Inserted Pin (FIP) concept introduced last year by Ericsson. This PKU-E surface mount version is compatible with the most demanding assembly processes. The surface mount product is intended for forced convection or vapor phase reflow soldering in SnPb or Pb-free processes.

PKU-E's low cost is the result of extensive engineering research, resulting in components and sub-functions being optimized to a very high level, thus simplifying ways to control critical features using very few components. The same board is used for PI (pins) and SI (surface mount) versions of PKU-E, which increases the flexibility and speed of manufacturing and contributes to reduced lead-times. Despite its low cost, PKU-E offers a wide range of features including pre-bias, monotonic rise, wide input range, excellent load and line regulation, and excellent dynamic performance.

Reducing running costs and environmentally friendly, the PKU-E offers high efficiency, typically 89.5 percent at 3.3V 50 percent load, with 27Vin and 1500Vdc input to output isolation. The PKU-E is DOSA (Distributed-power Open Standards Alliance) compatible, ensuring footprint compatibility across a wide range of manufacturers and compatibility with all aspects of DOSA, thus aiding sourcing and inventory.

PKU-E's electrical design is based on a fly-forward topology that enables a wide input voltage range while maintaining high efficiency. Both transformer and output inductor are integrated in the PCB, which combined with the selection of low thermal impedance MOSFETs provides excellent thermal performance.

Whilst the techniques used are not unique, Ericsson's PKU-E has been developed using a new approach that considers how to simplify design while maintaining high performance. This concept, based on recent products launched, as well as on new processes recently implemented has made it possible for Ericsson to offer a flexible product addressing a very wide range of applications.

The predicted MTBF for the PKU-E series is 1.71million hours according to Telcordia SR332, issue 1, Black box technique.

Using products in high temperature Pb-free soldering processes requires dry pack storage and handling. Accordingly, intended for Pb-free reflow soldering processes, PKU-E is delivered in standard moisture barrier bags according to IPC/JEDEC standard J-STD-033 (Handling, packing, shipping and use of moisture/reflow sensitivity surface mount devices).

Notes to editors:

Ericsson's standard multimedia content is available at the broadcast room:

www.ericsson.com/broadcast_room

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.

Ericsson is advancing its vision of 'communication for all' through innovation, technology, and sustainable business solutions. Working in 175 countries, more than 70,000 employees generated revenue of USD 27.9 billion (SEK 188 billion) in 2007. Founded in 1876 and headquartered in Stockholm, Sweden, Ericsson is listed on OMX Nordic Exchange Stockholm and NASDAQ.

For more information, visit www.ericsson.com or www.ericsson.mobi.

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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.