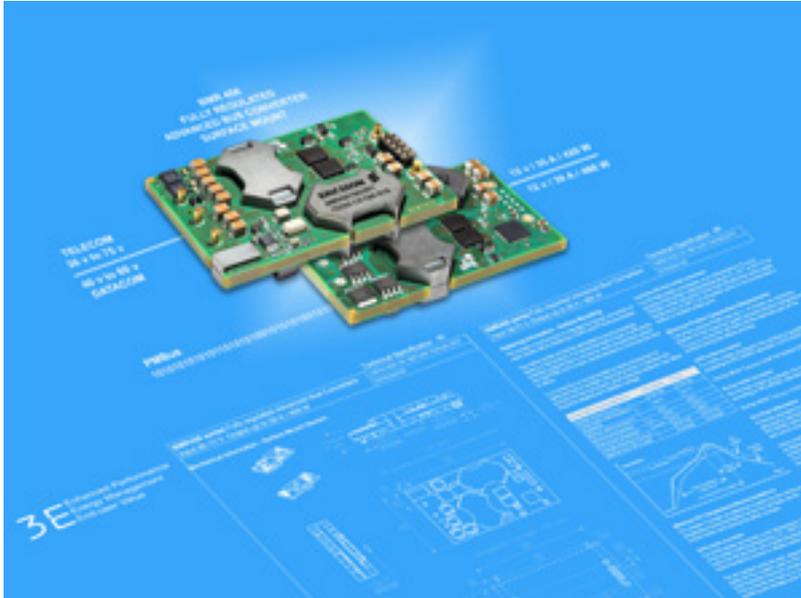


SMT advanced bus converter promises to save board space



Ericsson introduced a new surface-mounted version of its second generation of digital Advanced Bus Converter (ABC) products, called the BMR456-SI. This high-efficiency, digitally controlled DC/DC converter is compliant to full surface-mount manufacturing processes, and high-precision tooled pins guarantee high co-planarity and robustness, according to the company. Advanced firmware integrated in the BMR456-SI is asserted to contribute toward significant reduction in energy consumption. Tightly regulated output voltage (± 2 percent) over the full operational range of 36 V to 75 V, and the output power up to 468W for datacom applications.

The BMR456-SI is based upon the FRIDA II platform, which was announced last year, both the surface-mount BMR456-SI and the through-hole BMR456-PI quarter-brick 3E* Advanced Bus Converters deliver unprecedented performance to system architects that are developing equipment for ICT (Information and Communication Technology) applications. These applications require fast response time, tightly regulated intermediate bus voltages and high efficiency at any point of operation to reduce power consumption.

Surface Mount for Increasing Board Density Board density is increasing and to simplify manufacturing processes, power module suppliers need to offer surface-mount alternatives to conventional through-hole versions. Although it is not necessarily an issue at low- and mid-power levels, it can be a significant challenge for high power modules and even more so when these modules require additional I/O.

Ericsson's advanced mechanical surface-mount technology is based on highly accurately tooled pins that are inserted and aligned during the original assembly process. The same hardware is used for through-hole and surface-mount versions of

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the BMR456, which increases the flexibility and speed of manufacturing and contributes to smaller lead times. The surface-mount pins are manufactured with very tight tolerances, guaranteeing co-planarity and mechanical accuracy. This process ensures high reliability and host equipment availability.

In addition to input and output power connections, additional I/O (+/- output remote sense, address pin, PMBus clock and data, power good and user configurable I/O, PMBus ground, PMBus alert signal and PMBus remote control or current sharing) is made available through a micro-interface. This connector has been designed to comply with Ericsson's advanced high-precision surface-mount technology and to guarantee full alignment and co-planarity during different soldering processes.

Ericsson, www.ericsson.com/powermodules [1]

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