

## **Ericsson's power module is digitally controlled for efficiency and performance in MicroTCA applications**

**Including the latest, most advanced digital DC/DC converter, Ericsson Power Modules' MicroTCA power module has gone through extensive interoperability testing with other MicroTCA component suppliers and system integrators. The digital control of the DC/DC converter that is embedded within the module is truly unique to Ericsson and provides cutting edge performance in terms of the level of control available, and efficiency.**

The power module was initially announced during 2007 as an evaluative level product (preliminary part number ROA 117 5078/1) intended for interoperability testing. The results from numerous interoperability workshops together with MicroTCA component suppliers and system integrators have now been incorporated into the product, now called BMR 911 483/1, to improve functionality, performance and reliability. Two features that have been added are a USB interface that is accessible to the user via the faceplate, and redundant operation of payload and management power.

MicroTCA is for use in many different types of applications and kinds of Information and Communication Technology (ICT) equipment. Some of the most suitable ones will most likely be edge and access equipment. In addition to applications in the communications industry, this power module is also suitable for applications targeting enterprise, military, medical and industrial markets.

Open-architecture platforms such as MicroTCA, supported by commercial off-the-shelf (COTS) products, allow TEMs to reduce their investment in proprietary hardware that will shorten design cycles and provide economy of scale by reusing common building blocks. This supports the ongoing shift among TEMs in their added value focus move from hardware over to applications and services.

BMR 911 483/1 requires a -48VDC supply and is rated at 355W output power. Housed in a full size (6HP) single width form factor package, it provides 16 channels of 12V payload power and 16 channels of 3.3V management power. Designed to comply PICMG® specification MTCA.0 R1.0, it is a standards based product that minimizes interoperability testing when used in MicroTCA systems, thus reducing design cycles and cost.

With its high efficiency figure of typically 95% at half load, the BMR 911 483/1 offers reduced energy consumption, lower cost of operation and reduced environmental impact. The single board design offers a cost

efficient solution and good thermal performance. The integral USB interface allows the user to debug and monitor operation during evaluation and system integration.

Redundant payload and management power operation features provide for improved system level reliability by N+1 redundant power module implementation.

The power module has been designed in accordance with the high performance, reliability and environmental standards that Ericsson puts on ICT equipment. This has been accomplished using the company's extensive power architecture knowledge, ensuring that cost, efficiency and performance are considered all the way from the AC mains down to the payload components. The very stringent requirements put on ICT equipment also make this power module suitable for other demanding applications.

Technology-wise the module includes an FPGA based Enhanced Module Management Controller (EMMC). The DC/DC converter is using Ericsson's most advanced digital control technology that allows the EMMC to control, configure and monitor the power conversion during operation of the MicroTCA power module. The performance of the EMMC was leveraged by already available semiconductor and firmware technology within Ericsson. The module has been designed as per the most stringent requirements on cost, reliability, efficiency and performance for ICT equipment.

*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 the Stockholm and NASDAQ stock exchanges.*

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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.