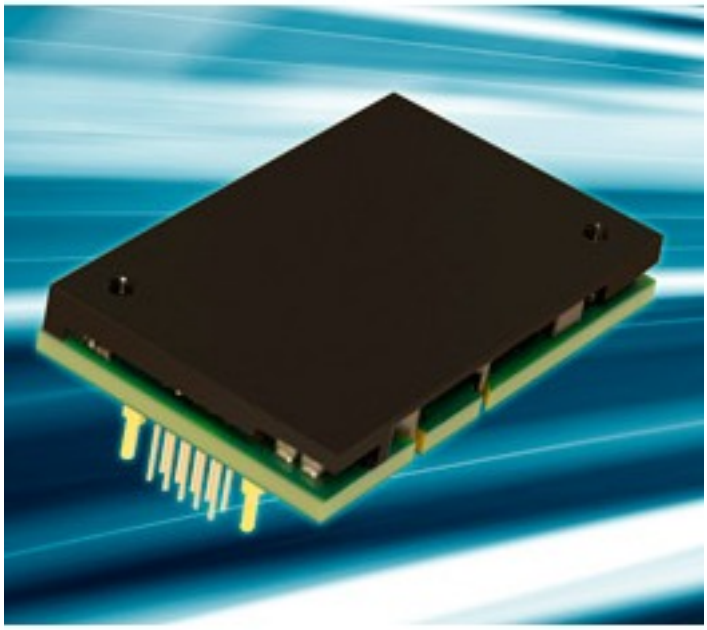
DC-DC converters feature a typical efficiency of 95.5%



Murata announced the UDQ series of isolated digitally controlled DC-DC converters developed by Murata Power Solutions. Incorporating a 32-bit ARM7 processor, the 420 Watt regulated UDQ2204/001 model is the first in a series of DC-DC converters from Murata Power Solutions to include a PMBus compatible digital interface. The UDQ series is packaged in the industry standard quarter-brick format incorporating the ABC (Advanced Bus Converter) pinout for PMBus communications to an isolated DC-DC converter.

The UDQ2204/001 is an isolated, fully regulated, 420W-12Vout quarter brick that supports the TNV input voltage range of 36Vâ€“75V with a typical efficiency of 95.5%. To achieve this level of performance the UDQ utilizes a 32-bit ARM7 processor and proprietary firmware to control all critical functions of the module. The module provides a digital interface (ABC pinout) supporting the PMBus standard for digital power management in systems used in applications such as MicroTCA, servers, storage, networking equipment, POE, wireless networks, industrial and test equipment.

The PMBus interface facilitates power management features not previously available in an isolated, modular, 1/4 brick DC-DC converter. By attaching the UDQ to the systemâ€™s I2C bus, an engineer can monitor Vin, Iin, Vout, Iout, and operating temperature. The PMBus can be used to set warning flags for temperature, Vin, Vout, Iout and allows the user to customize parameters such as Vout, Vin turn on/off thresholds, output over voltage protection, output current limit and ramp up characteristics, to name a few.

A GUI (Graphical User Interface) and evaluation boards are available to assist the

power engineer in designing a state-of-the-art power system. Typical applications for the UDQ series include Distributed Power Architectures (DPA) and Intermediate Bus Architectures (IBA) in MicroTCA, data center, server, storage, networking, wireless base stations, fan trays, industrial and test equipment applications.

www.murata.com [1]

Source URL (retrieved on *11/29/2014 - 1:17am*):
http://www.ecnmag.com/product-releases/2013/05/dc-dc-converters-feature-typical-efficiency-955

Links:
[1] http://www.murata.com