

ISSUE: September 2022

Converter-In-Package Delivers 4 kW For Automotive Applications

<u>PPM Power</u> has announced the UltraMod4000 family of isolated dc-dc converters from <u>TTPi</u>, the advanced power electronics spinout from the Power Electronics, Machines and Control Group at the University of Nottingham. The UltraMod4000 is a family of GaN-based, multipurpose, bidirectional, isolated, dc-dc converters, designed to work either standalone or together in a multi-modular system (see the figure).

At around 200 g and just 100 x 80 x 26 mm, the UltraMod4000 has a 4-kW power throughput which puts it in a unique power density category, according to the vendor, and makes it suitable for the demands of high-performance automotive, as well as other vertical markets and applications. TTPi is in discussions with a number of automotive prospects and trials are now open.

The UltraMod series is well suited to applications where weight, size and efficiency are critical, as well as power density. For example, electric vehicles, aerospace (such as aircraft cabins), rail, industrial drives and renewable applications. Additionally, the modular nature of these products can drastically reduce design time and design-related overheads

PPM Power has been appointed UK distributor for this product and was selected to host the launch on the PPM Power stand at LCV-Cenex Event, which was held September 7-8 at the UTAC Millbrook Proving Ground in Millbrook, Bedfordshire, U.K.

Phil Surman, sales director at PPM Power said, "We're delighted to be showcasing this ground-breaking product, which has roots in the UK's world leading power electronics academic community. The UltraMod series of power converters shows what wide-bandgap semiconductor technology is capable of delivering."

For more info, see the UltraMod DC-DC Converters page



Figure. The UltraMod range is a family of GaN-based multipurpose, bidirectional, isolated, dc-dc converters, designed to work together in a modular system. Weighing around 200 g and measuring just 100 x 80 x 26 mm, the UltraMod4000 delivers 4 kW, which according to the company, puts it in a unique power density category and makes it suitable for high-performance automotive as well as other vertical markets and applications.