



NEW PRODUCT NOTIFICATION  
12 March 2019

## Flex Power Modules announces high power 1300W DC-DC converter in quarter-brick format

- High efficiency of 97.3% (typical)
- Digital interface with PMBus makes it simpler to fine-tune functionality
- Excellent thermal performance reduces system costs, and makes thermal design easier for electronics engineers

Flex Power Modules announces the launch of the BMR490, a non-isolated digital IBC (Intermediate Bus Converter) DC-DC converter with an output power of 1300W in the quarter-brick form factor. The new converter combines very high power density with excellent thermal performance in a price-sensitive design, making it ideal for demanding applications such as data centres.

In developing the converter, Flex Power Modules has registered more than 10 patents, which in part have led to significant improvements in the area of thermal management within the converter. To help with the thermal performance, manufacturing has also been improved, with the baseplate screwed directly to the converter's PCB. Together, these measures lead to an increase of usable power from the BMR490 of over 20% when compared to similarly rated modules in extended temperatures.

The BMR490 provides a digital interface fully compliant to PMBus 1.3, which makes it simple to reconfigure, and therefore to fine-tune the functionality to respond to the requirements of a particular application. The converter can be configured using the Flex Power Designer software, which provides detailed simulations including thermal modelling, and therefore helps reduce development time and minimise the risk of weaknesses in a power system design.



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Olle Hellgren, Director of Product Management and Business Development at Flex Power Modules, said: “In server and data centre applications, demands for power are always increasing. The new BMR490 provides an efficient solution with a very high power density, making it ideal for this kind of use case.”

The BMR490 offers high efficiency of typically 97.3%, at 53V input and half load. This has been achieved in part due to Hybrid Ratio Regulation (HRR), which enables the converter to switch seamlessly between conventional fixed-ratio or fixed-output conversion modes, depending on the input voltage and output demand. HRR delivers greater efficiency and power delivery under the commonest operating conditions, permits a wide input voltage range, and provides a superior response to transients.

The new converter is aimed at a variety of high power applications including data centres, high speed cloud, high performance computing, high capacity storage and high speed optical networking.

The input voltage range is 40V to 60V, with an output voltage of 12V and output current up to 145A. Input to output is non-isolated. The BMR490 is provided in an industry standard low-profile quarter brick package, measuring 58.4 x 36.8 x 14.5 mm (2.30 x 1.45 x 0.57 in).

The BMR490 will be available in OEM quantities from April 2019.

### **About Flex Power Modules**

Flex Power Modules, a division of Flex (NASDAQ: FLEX), designs and manufactures scalable power supply solutions that improve the operational efficiencies of advanced data centre, IT information and communications networks. Flex Power Modules offers also a wide product range for the Industrial/Transportation sector. Flex Power Modules' products provide a complete on-board system solution for cloud, storage and server applications and address customer challenges while delivering superior quality, cost and performance at scale.



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### **About Flex**

Flex is the Sketch-to-Scale® solutions provider that designs and builds Intelligent Products for a Connected World™. With approximately 200,000 professionals across 30 countries, Flex provides innovative design, engineering, manufacturing, real-time supply chain insight and logistics services to companies of all sizes in various industries and end-markets. For more information, visit [flex.com](http://flex.com) or follow us on Twitter @Flexintl. Flex – Live Smarter™

### **Contact for editorial information:**

Nayl D'Souza, Account Director, Publitek  
Email: [nayl.dsouza@publitek.com](mailto:nayl.dsouza@publitek.com)

### **Contact for company information:**

Tuuli Waern, Technical Marketing Manager, Flex Power Modules  
Email: [tuuli.waern@flex.com](mailto:tuuli.waern@flex.com)