



News Release

POWER INDUSTRY LEADERS CREATE ALLIANCE FOR 48V DIRECT-CONVERSION APPLICATIONS

Artesyn Embedded Technologies, Bel Power Solutions, Flex and STMicroelectronics Form Power Stamp Alliance to Enable Multi-Vendor Supply-Chain Ecosystem for Open Compute and Data Center Projects

San Jose, Calif. – [March 20, 2018] – At the Open Compute U.S. Summit 2018 today, four leading suppliers of power solutions announced a new alliance, the Power Stamp Alliance, to create collaborative solutions for 48V-to-low-voltage on-board DC-DC power converters. These 48V direct conversion DC-DC modules - or ‘power stamps’ - primarily target high-performance computers and servers being used in large data centers, many of which follow the principles of the Open Compute Project (OCP). By creating and sharing a specification for a standard product footprint and functions, the Power Stamp Alliance has created a multi-vendor ecosystem to assure practical levels of alternate source capability to server and storage system manufacturers, while encouraging a competitive supply chain through differentiation in topology, circuitry, and performance from multiple, independent manufacturers.

The first processor architectures addressed by the Power Stamp Alliance include the Intel VR13 Skylake CPUs, Intel VR13-HC Ice Lake CPUs, DDR4 memories, IBM POWER9 (P9) processors and high-current ASIC and/or FPGA chipsets supporting the SVID or AVS protocols. The electrical concept of power stamps uses the principle of a discrete or main stamp unit controlling up to five satellite stamp units that combine to achieve more than 600 amps in total current capability. The size and powertrain footprint of the main and satellite power stamps are the same, simplifying the design process for OEMs. As the power demands of processor and memory devices increases, the PSA specification provides a scalable solution that can be used in tandem with existing power-conversion devices.

“The kind of plug-and-play solutions enabled by the Power Stamp Alliance should appeal not only to the hyperscale data center builders but also to high performance computer makers and telecom equipment suppliers as the stamps themselves should be easy to integrate into their systems,” said Maggie Shillington, data centers, cloud and IT Infrastructure research analyst at IHS Markit. “Driving efficiency and power density down to the board level within an open framework follows the values of initiatives such as the

Open Compute Project and Project Scorpio and allows each vendor to focus on their own expertise and experience.”

The PSA has published specifications, drawings and pin-out descriptions for main and satellite power stamps at <http://www.powerstamp.org/specifications/>.

[About the Power Stamp Alliance](#)

The Power Stamp Alliance has been formed to define a standard product footprint and functions that provide a multiple sourced, standard modular board-mounted solution for power conversion for 48Vin to low-voltage, high-current DC-DC applications. These 48V single-stage, direct-conversion DC-DC modules - or 'power stamps' - primarily target devices being used in large data centers (e.g. high-performance computers, ASICs, and FPGAs), many of which follow the principles of the Open Compute Project (OCP). The Founding Members of the Power Stamp Alliance are [Artesyn Embedded Technologies](#), [Bel Power Solutions](#), [Flex](#) and [STMicroelectronics](#).

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