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NEWS RELEASE

Power Integrations Unveils Space-Saving, Ultra-Slim Auxiliary PSU Reference Designs for NVIDIA Kyber 800 VDC AI Data Center

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Compact, low-profile designs use highly integrated, 1700 V-rated PowiGaN™, single-HEMT ICs to save space, simplify designs, improve reliability and lower BOM count with 88 percent efficiency

TAIPEI, Taiwan--(BUSINESS WIRE)-- COMPUTEX – **Power Integrations** (NASDAQ: **POWI**), the leader in high-voltage integrated circuits for energy-efficient power conversion, today introduced two new ultra-slim, compact auxiliary power supply reference designs for 800 VDC AI data centers. The single-output, 15 W design is only 30 mm by 30 mm with a 7 mm profile, while the isolated, six-rail, 35 W design is only 80 mm by 60 mm with an 8 mm profile. Optimized specifically for the NVIDIA Kyber liquid-cooled, blade-rack architecture, these ultra-compact solutions free up approximately 30 percent space on densely packed main power distribution boards (PDBs) with an estimated 30 percent reduction in the BOM count—streamlining design and improving overall reliability. These designs are highly efficient with at least 88 percent efficiency across line and load.

Compact, low-profile designs using 1700 V-rated PowiGaN, single-HEMT ICs save space, boost efficiency, and improve reliability for NVIDIA Kyber 800 VDC AI Data Center.

“As the only company offering single-HEMT 1700 V GaN devices, Power Integrations can design these best-in-class, highly efficient flyback converters with a low BOM count while maintaining wide safety margins on an 800 V bus,” said Jason Yan, Senior Training Manager at Power Integrations. “The only alternative solutions are discrete, costly silicon carbide (SiC) devices which require 30 percent more components and space to operate.”

The newly published design example reports describe 35 W and 15 W flyback auxiliary power supplies for high-

voltage AI data center applications. These compact power supply units (PSUs) provide power for internal components such as MCUs, gate drivers, and op-amps, which deliver critical “control and housekeeping” functions to ensure reliability, efficiency and system safety.

Both designs are based on Power Integrations’ **InnoMux™-2** ICs with 1700 V PowiGaN gallium-nitride (GaN) technology. The 1700 V-rated InnoMux-2 IC easily supports 1000 VDC nominal input voltage in a flyback configuration and can deliver flat efficiency of 90 percent in discontinuous conduction mode (DCM) while maximizing power delivery.

Resources

These designs can be downloaded for free from power.com:

- **DER-1110** – this design uses the IMX2353F to deliver a 35 W, multi-output flyback PSU for auxiliary power supplies used in high-voltage AI data centers.
- **DER-1114** – this design uses the IMX2353F to deliver a 15 W, single-output flyback PSU for auxiliary power supplies used in high-voltage AI data centers.

For further information, contact a Power Integrations sales representative or one of the company’s authorized worldwide distributors—**DigiKey**, **Newark**, **Mouser** and **RS Components**, or visit **power.com**.

About Power Integrations

Power Integrations, Inc. is a leading innovator in semiconductor technologies for high-voltage power conversion. The company’s products are key building blocks in the clean-power ecosystem, enabling the generation of renewable energy as well as the efficient transmission and consumption of power in applications ranging from milliwatts to megawatts. For more information, please visit **www.power.com**.

Media Contact

Linda Williams
Power Integrations
(408) 414-9837
linda.williams@power.com

Press Agency Contact

Nick Foot

BWW Communications

+44-1491-636 393

nick.foot@bwwcomms.com

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