

July 31, 2026  
SUMIDA CORPORATION

## **Announcement of Joint Development with Infineon Technologies AG for Next-Generation Power Conversion Systems**

Sumida and Infineon Technologies AG (hereinafter, “Infineon”) are jointly advancing next-generation medium-frequency transformer (MFT) solutions as a key enabler for Solid-State Transformer (SST) architectures. This collaboration combines Infineon’s leadership in power semiconductor technologies with Sumida’s expertise in high-performance magnetics, addressing the rapidly evolving requirements of electrification, especially for AI data centers, ultra-fast charging infrastructure and grid modernization.

### **Technology Focus: Medium-Frequency Transformers for SSTs**

SST systems represent a paradigm shift in power conversion by enabling higher efficiency, reduced system size, and enhanced controllability. At the core of these systems, medium-frequency transformers operate at significantly higher switching frequencies compared to conventional transformers, enabling:

- Significant size and weight reduction (saving resources)
- Improved power density and efficiency (less energy waste)
- Enhanced bidirectional power flow capabilities (enable efficient smart grid)
- Integration into modular, scalable power architectures (high flexibility)

Sumida’s advanced magnetics design capabilities, particularly in core materials, winding technologies, thermal optimization and fulfilling the challenging isolation requirements of MVAC Input are closely aligned with Infineon’s latest wide-bandgap semiconductor technologies, ensuring optimal system performance, by using up to 3.3 kV CoolSiCTM devices.

### **PCIM Europe 2026 – Joint Market Visibility**

A key milestone of this collaboration was showcased at PCIM Europe 2026 in Nuremberg, one of the leading international exhibitions for power electronics.

- The Sumida developed “Granite” medium-frequency transformer was presented at the Infineon booth
- The exhibit demonstrated the co-engineered system approach between semiconductor and magnetic components
- The strong joint presence highlighted the partnership and shared innovation roadmap

The positive industry feedback at PCIM underscores the growing relevance of integrated SST solutions and validates the collaboration’s technological direction.

This partnership positions Sumida as a key enabler in next-generation power conversion systems:

- Entry into high-growth SST and high-power electrification markets
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- Strengthening of technology leadership in advanced magnetics
- Expansion of strategic ecosystem partnerships with global semiconductor leaders
- Creation of long-term value through differentiated, system-level solutions

## **Conclusion**

The joint effort between Infineon and Sumida exemplifies a cooperative, forward-looking approach to innovation in power electronics. By combining complementary strengths, both companies are accelerating the development of highly efficient, compact, and scalable SST solutions—paving the way for the next generation of electrified infrastructure.

## **About Infineon Technologies AG**

Infineon Technologies AG, headquartered in Munich, Germany, is a global provider of semiconductor solutions. Infineon serves the automotive, industrial & infrastructure, and consumer computing & communication markets, contributing to decarbonization and digitalization through its innovative products and solutions.

[Note on translation]

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