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Materials Engineering Platform For Optimized Ferrite Core Design

[Sumida Components](#) has launched a Magnetic Materials engineering platform designed to support power electronics and high-frequency design engineers. The site provides ungated access to advanced technical resources, material expertise, and customized ferrite core solutions.

The platform addresses a common design limitation in magnetic component development: engineers frequently must adapt circuit architectures to fit a limited variety of standard ferrite core geometries and material characteristics. By combining digital engineering tools with direct access to material science expertise and custom manufacturing capabilities, the platform enables more application-optimized magnetic design.

In addition to detailed information on standard MnZn and NiZn ferrite materials, the site provides integrated tools for evaluating magnetic performance parameters, such as core losses, including dielectric loss components and the effects of dc bias pre-magnetization. Engineers can also submit specifications through an online CNC core request tool to rapidly assess feasibility and obtain pricing for custom ferrite geometries.

A key feature of the platform is its integrated access to Sumida's technical services, including material science development, customized ferrite formulations, advanced analysis and testing capabilities, and in-house tool shop resources. These capabilities support collaborative development of magnetic components tailored to specific requirements.

The website also highlights Sumida's simulation and modeling capabilities. This can enable more accurate predictions of magnetic behavior in complex operating environments, reducing the need for iterative physical prototyping.

"An innovation of this website is easy access to an extraordinary amount of data along with tools to shorten engineering development time," said Thomas Wagmann, SVP, Sumida. "This resource is intended to facilitate more informed material selection and accelerate system-level design optimization."

By integrating technical data, engineering tools, and development services within a single digital environment, the Magnetic Materials platform enables designers to move beyond catalog-based component selection toward optimized magnetic solutions that improve efficiency, reduce losses, and support system miniaturization.

To access the Magnetic Materials engineering platform, see the [website](#). For more information, In North America, contact Sumida America Components at (847) 545-6700.