



Ansys Delivers Early-Stage Antenna Design for IoT and 5G with Integrated Electromagnetics in Ansys Discovery

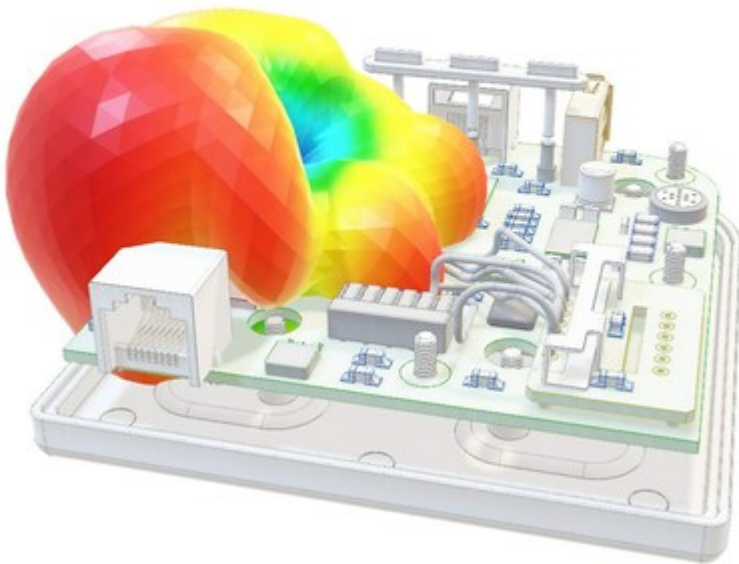
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Ansys launches new upfront simulation capabilities that help accelerate the development of IoT devices, autonomous vehicles, and 5G applications while improving their efficiency and performance

/ Key Highlights

- Ansys Discovery's new high-frequency electromagnetic capabilities encourage companies to shift left – introducing simulation earlier in the design process to a broader set of users
- Upfront simulation enables companies to evaluate more design concepts, while helping to reduce the need for physical prototyping, testing, and related costs
- Discovery increases focus on design and ideation, while providing seamless integration to Ansys' greater portfolio for further validation

PITTSBURGH, June 27, 2023 /PRNewswire/ -- [Ansys](#) (NASDAQ: ANSS) expanded the upfront simulation capabilities in [Ansys® Discovery™](#) to include high-frequency electromagnetics (EM) modeling for antennas. The launch empowers teams to virtually explore several design areas at once — minimizing the need for physical prototyping and testing, which helps accelerate development, reduce costs, and improve performance and efficiency.



The latest EM features add to Discovery's existing capabilities and create a unique multiphysics simulation environment coupled with interactive geometric modeling along with seamless integration to the greater Ansys portfolio. The new offering enables companies to investigate new concepts early in the antenna design process leading to better performance for Internet of Things (IoT) applications as well as 5G technology and autonomous vehicles.

"Smart, highly miniaturized, implantable medical devices are enabling whole new therapeutic areas and improving patient care. A critical component of designing a smart implant is developing an efficient and robust wireless antenna," said Dr. Arun Venkatasubramanian, senior vice president, Medical Technology Division at Cambridge Consultants, part of Capgemini Invent. "As a product development and technology consultancy that creates cutting-edge solutions, we are looking forward to using Ansys Discovery to augment our existing Ansys HFSS antenna design workflow. This will allow us to rapidly explore conceptual antenna designs and accelerate the delivery of innovative solutions to our clients."

Discovery equips teams to quickly evaluate changes to element design and antenna placement without having to interpret or clarify complicated computer-aided design (CAD) geometry. Discovery automates the creation of EM regions based on desired frequency ranges and assigns conductive and dielectric material based on port definitions. This automation supports the rapid evaluation and integration of antenna concepts while eliminating manual geometry cleanup. Additionally, engineers and designers can seamlessly transfer the model and physics setup to [Ansys® HFSS™3D](#)

high-frequency EM simulation software for final design validation.

"Adding EM capabilities in Ansys Discovery for antenna design not only shifts simulation left, but it democratizes simulation for all users from beginner to expert," said Shane Emswiler, senior vice president of products at Ansys. "Discovery provides an easy-to-use interface with integrated modeling and access to other Ansys tools, which streamlines the antenna design process and results in optimized development, performance, and efficiency."

To explore Discovery, register for a [free trial](#) today.

/ About Ansys

When visionary companies need to know how their world-changing ideas will perform, they close the gap between design and reality with Ansys simulation. For more than 50 years, Ansys software has enabled innovators across industries to push boundaries by using the predictive power of simulation. From sustainable transportation to advanced semiconductors, from satellite systems to life-saving medical devices, the next great leaps in human advancement will be powered by Ansys.

Take a leap of certainty ... withAnsys.

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