



Samsung Foundry Certifies Ansys RaptorH For Countering Electromagnetic Effects In 2.5D/3D Integrated Circuits And Systems

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Ansys and Samsung accelerate 2.5D/3D-IC validation for AI, high-performance computing and 5G semiconductor designs

PITTSBURGH, April 30, 2020 /PRNewswire/ -- [Samsung Foundry](#) certified Ansys® RaptorH™ electromagnetic (EM) simulation solution for developing advanced systems-on-chip (SoC) and two and a half dimensional/three-dimensional integrated circuits (2.5D/3D-IC). The certification enables [Ansys](#) (NASDAQ: ANSS) to help Samsung designers and Samsung Foundry customers more accurately analyze and mitigate risks from EM effects when adopting Samsung's new signoff flow — significantly expediting the advancement of state-of-the-art artificial intelligence (AI), high-performance computing (HPC) and 5G semiconductor designs.

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Samsung's series of advanced nanometer silicon and 2.5D/3D-IC technologies require a signoff methodology for validating EM interference that negatively impacts complex multi-chip assemblies — a task that traditional tools are not designed to handle. Engineers require a high-capacity EM analysis tool to accurately model the signal integrity of very large SoCs and 2.5D/3D assemblies which process signals at very high data rates. The hard-to-quantify interactions among signals in 2.5D/3D-ICs are critical points of failure and limit the rate of new technology adoption.

Combining the high-fidelity, high-frequency electromagnetic solvers of [Ansys® HFSS™](#) with the tremendous speed and robust architecture of [Ansys® RaptorX™](#), RaptorH's highly integrated analysis solution helps Samsung designers model EM phenomena and push higher frequencies in their 2.5D/3D chip assemblies with confidence that parasitic effects will not compromise the system. This will drive a faster ramp to mainstream production for these new packaging technologies with significantly reduced risk.

"Increasing data rates, higher levels of electronic system integration and packaging density are leading to a greater demand for new EM analysis capabilities on an unprecedented scale," said Dr. Jaehong Park, executive vice president of Foundry Design Platform Development at Samsung Electronics. "Leveraging Ansys RaptorH empowers our talented engineering team to overcome unwelcome EM phenomena, in order to shrink design cycles, decrease budgets and increase performance."

"Continuing our deep relationship with Samsung, RaptorH provides an enhanced signoff flow for eliminating risks from EM interference and directly supports Samsung's development of cutting-edge AI, HPC and 5G semiconductor designs. RaptorH will help Samsung designers and foundry customers shrink chip size, slash power demands, reduce costs and speed their products to market," said Yorgos Koutsoyannopoulos, vice president of engineering at Ansys. "This solution also demonstrates Ansys' ability to not only integrate a new acquisition, like Helic, into our portfolio quickly but also accelerate growth and bring much needed solutions to customers around the world."

About Ansys

If you've ever seen a rocket launch, flown on an airplane, driven a car, used a computer, touched a mobile device, crossed a bridge or put on wearable technology, chances are you've used a product where Ansys software played a critical role in its creation. Ansys is the global leader in engineering simulation. Through our strategy of Pervasive Engineering Simulation, we help the world's most innovative companies deliver radically better products to their customers. By offering the best and broadest portfolio of engineering simulation software, we help them solve the most complex design challenges and create products limited only by imagination. Founded in 1970, Ansys is headquartered south of Pittsburgh, Pennsylvania, U.S.A. Visit www.ansys.com for more information.

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