



## Ansys RedHawk-SC Multiphysics Signoff Solution Achieves Certification On All TSMC Advanced Process Technologies

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Ansys and TSMC extend partnership to deliver high-speed and high-capacity power integrity signoff design solutions spanning 16nm to 5nm processes

PITTSBURGH, May 6, 2020 /PRNewswire/ -- [Ansys](#) (NASDAQ: ANSS) achieved certification for its next-generation system-on-chip (SoC) power noise signoff platform for all [TSMC's](#) advanced process technologies. This helps mutual customers verify the power requirements and reliability of the world's largest chips for artificial intelligence, machine learning, 5G mobile, and high-performance computing (HPC) applications.

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Enabling advanced process technologies to perform reliably in the presence of thermal hotspots and highly variable switching activities eliminates overdesigning power distribution networks. But as technical constraints significantly increase, power networks substantially grow, incorporating tens of billions of electrical nodes that require massive parallelization and very high capacity.

Ansys collaborates with TSMC on the certification of [Ansys® RedHawk-SC™](#) for TSMC's industry-leading process nodes — including N16, N12, N7, N6 and N5 — and will work closely with TSMC on its future process technologies. The certification includes extraction, power integrity and reliability, signal electromigration (EM) and thermal reliability analysis and statistical EM budgeting analysis. Delivering tremendous speed and capacity, RedHawk-SC analyzes huge designs by implementing the signoff algorithms on [Ansys® SeaScape™](#) — a highly parallelized database derived from big data machine learning architectures and optimized for electronic design.

"Our collaboration with Ansys has resulted in addressing critical challenges of silicon design for applications such as 5G, AI and HPC," said Suk Lee, senior director of the Design Infrastructure Management Division at TSMC. "We're looking forward to continued collaboration with Ansys to help our mutual customers unleash their silicon innovations with high-speed and high-capacity multiphysics signoff design solutions on TSMC's process technologies including our 5nm technology, the most advanced foundry solution currently available in the world."


"The breadth and depth of our partnership with TSMC reflects the value and need for multiphysics signoff for AI, 5G, HPC, machine learning, networking, automotive and many other applications," said John Lee, vice president and general manager, Ansys. "RedHawk-SC satisfies the growing demand for extreme parallel processing and powerful compute capacity that responds to advances in transistor technology and supports the increasing adoption of three-dimensional integrated circuits-enabled packaging techniques."

### 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](http://www.ansys.com) for more information.

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