



Ansys, Intel Foundry Collaborate on Multiphysics Analysis Solution for EMIB 2.5D Assembly Technology

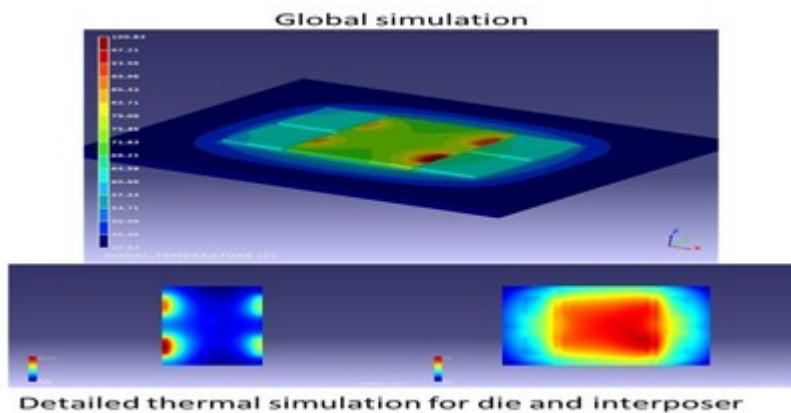
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Ansys electro-thermal analysis tools address novel physics requirements for signoff verification of multi-chip HPC, graphics, and AI applications

/ Key Highlights

- Ansys collaboration to expand from single-die system-on-chip (SoC) to include Intel's embedded multi-die interconnect bridge (EMIB) assembly technology
- Ansys multiphysics analyses provide signoff verification of thermal integrity, power integrity, and mechanical reliability

PITTSBURGH, Feb. 22, 2024 /PRNewswire/ -- [Ansys](#) (NASDAQ: ANSS) and Intel Foundry collaborated to provide multiphysics signoff solutions for Intel's innovative 2.5D chip assembly technology, which uses EMIB technology to connect the die flexibly and without the need for through-silicon vias (TSVs). Ansys' accurate simulation engines deliver higher speeds, lower power consumption, and greater reliability in advanced silicon systems for artificial intelligence (AI), high-performance computing, autonomous driving, and graphic processing.



[Ansys RedHawk-SC Electrothermal™](#) is an electronic design automation (EDA) platform that enables multiphysics analysis of 2.5D and 3D-ICs with multiple dies. It can perform thermal analysis with anisotropic thermal conduction, which is essential for Intel's new backside power distribution technology. Thermal gradients also lead to mechanical stresses and warpage that can impact product reliability over time. Power integrity verification is done through chip/package co-simulation, which gives the 3D system-level context needed for maximum accuracy.

"Intel's enablement of Intel 18A and EMIB technology is a differentiated approach to multi-die assembly that has a number of significant advantages over traditional stacking techniques," said Rahul Goyal, vice president & general manager, product and design ecosystem enablement at Intel. "We will collaborate closely with Ansys to make the full benefit of this innovation easily accessible to our joint customers so they can create more competitive products."

"Ansys has collaborated with Intel Foundry at the leading edge of 3D manufacturing technology to solve complex multiphysics challenges and meet stringent thermal, mechanical, performance, and reliability requirements," said John Lee, vice president and general manager of the electronics, semiconductor, and optics business unit at Ansys. "Ansys' multiphysics signoff platform gives our mutual customers the flexibility to adopt EMIB technology for their system architecture and assemble the best-of-breed solutions for higher performance products and a smooth user experience."

/ About Ansys

Our Mission: Powering Innovation that Drives Human Advancement™

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.

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