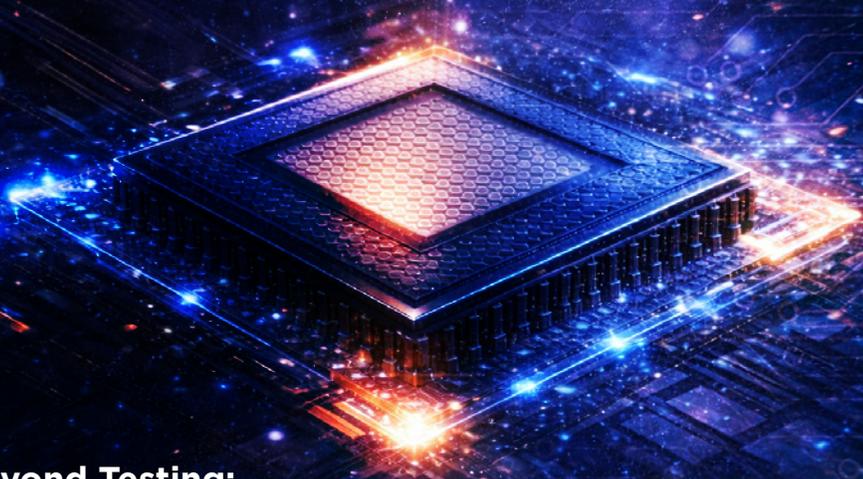


ELES HPC & AI DEPARTMENT

Advancing Reliability in the Exascale Era

ELES, a global leader in semiconductor test and qualification solutions, is proud to announce the official launch of its new department dedicated to High Performance Computing (HPC) devices. This strategic decision consolidates forty years of engineering excellence and addresses the new challenges posed by next-generation chips and applications.



Beyond Testing: A Strategic Partner for the AI Ecosystem

In a market where the pace of AI innovation often outstrips hardware validation capabilities, ELES positions itself as a fundamental technology partner. The department not only provides equipment, but also delivers an integrated ecosystem of expertise to support customers in the qualification of the most complex HPC and AI devices.



Disruptive Innovation: Mastering the Escalation of Power Density

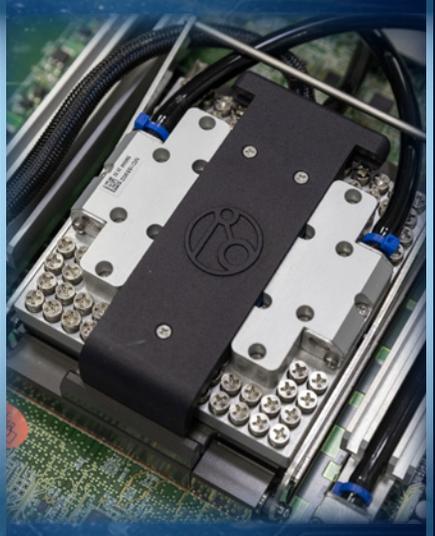
The technological core of the offering lies in the ability to manage unprecedented **power** concentrations across microscopic surfaces, where traditional cooling paradigms become less effective. ELES HPC solution is built upon a revolutionary test architecture that combines innovative thermal management with outstanding performance in powering devices under test:

- **Power Density Management:** Systems engineered for the validation of next-generation multi-die SoCs and GPUs with power dissipation of up to 3,000W. ELES innovation makes it possible to overcome the limits of conventional heat exchange by managing ultra-high-density heat fluxes that would otherwise compromise the structural integrity of silicon. Through a proprietary two-phase fluid cooling system, ELES leverages physical state transition to ensure isothermal dissipation. This approach not only stabilizes the device under massive computational loads but also eliminates thermal gradients across the chip — a critical factor for accurate reliability testing.
- **Power & Signal Integrity:** The architecture is engineered to optimize power integrity, ensuring stable applied voltage delivery even during severe load transients. The SIBs (Socket Interface Boards), which house the devices under test, are designed to preserve signal integrity under the highest levels of electrical and thermal stress.
- **Scalability and High-Parallelism System Architecture:** With parallelism of up to 80 sites and a narrow-footprint design, ELES transforms the complexity of HPC testing into a competitive advantage in terms of both space efficiency and energy performance



An End-to-End Approach to Qualification

ELES HPC and AI Department introduces a consultative service model based on RETE methodology. The team of experts collaborates with customers from the earliest design stages, supporting the development of customized test programs, ensuring comprehensive test coverage, and optimizing the effectiveness of test patterns. This approach dramatically reduces time-to-market and guarantees the long-term reliability required by mission-critical infrastructures.





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