

About the Company

VSAP LAB is a fully-funded Vietnamese startup specializing in Advanced Packaging solutions for semiconductor chips. We focus on research and innovation to provide design, manufacturing, prototyping, and testing services. Our mission is to deliver the best form factors, performance, and fastest time to market for our customers' chips. We aim to enable a complete semiconductor ecosystem in Vietnam. Through pioneering technology, we accelerate the growth of the local semiconductor industry.

If you are a talented person with a growth mindset, start-up spirit, keen on learning new things everyday and wants to be part of a journey that have a big impact for generations to come, this might be a perfect role for you.

Position Overview

The **Physical Design Engineer** is a key technical role responsible for the physical layout and design of advanced semiconductor packaging solutions, including Organic packages, Interposers, and PCBs. This position focuses on optimizing design performance and validating electrical integrity for machine qualification and advanced projects such as CoS and CoW. The Design Engineer will play a vital role in building standardized physical design and simulation flows (SI/PI, Thermal, and Warpage), while collaborating with foundries, customers, and internal engineering teams to drive technology development and product manufacturing.

Key Responsibilities

Physical Design & Optimization

- Perform layout and physical design for Organic packages, Interposers, and PCBs supporting company products and upcoming qualification projects (CoS, CoW).
- Study, evaluate, and optimize existing physical designs to enhance yield, manufacturability, and overall product performance.

Validation, Qualification & Flow Development

- Validate and qualify electrical performance to support equipment/machine qualification.
- Build, standardize, and continuously optimize internal physical design flows and integrated simulation workflows (SI/PI, Thermal, Warpage).

Technical Support & Customer Engagement

- Serve as a technical subject matter expert to support the Sales team with technical proposals, feasibility inputs, and customer inquiries when required.

Cross-Functional & Process Collaboration

- Partner closely with the Process Engineering team to support new packaging process development.
- Collaborate with foundries and external customers on product design alignment and manufacturing readiness.

Requirements

- Bachelor's or Master's degree in Electrical/Electronic Engineering, Microelectronics, Semiconductor Physics, or a related technical discipline.
- Minimum 3 years of professional experience in Semiconductor Design.
- Direct experience in physical design and layout for Organic substrates, Interposers, PCBs, or IC packaging.
- Hands-on experience with industry-standard physical design EDA tools (e.g., Cadence, Ansys, or Synopsys).
- Familiarity with SI/PI (Signal/Power Integrity), Thermal analysis, and Mechanical/Warping simulation techniques.
- Familiar with manufacturing files: GDSII, Gerber, ODB++
- Strong analytical and problem-solving mindset.
- Ability to collaborate effectively with cross-functional teams, customers, and external foundries
- Excellent technical communication skills in English and Vietnamese.
- Entrepreneurial mindset: willing to take on tasks beyond core responsibilities when needed in a fast-paced startup environment.
- Detail-oriented, organized, and able to work independently as well as in a team.
- Strong teamwork spirit with a positive, collaborative attitude.
- Friendly, approachable, and driven by a sense of community service and long-term impact.

Contact

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