

Principal / Senior Engineer, Product Engineering, Technical Operations Management

Your tasks

At **AUMOVIO AESS**, we are building the next generation of automotive semiconductor solutions that enable safer, smarter, and more connected mobility.

We are looking for a highly motivated **Principal / Senior Engineer, Product Engineering** to join our growing **Technical Operations Management (TOM)** organization. The role will lead the industrialization, qualification, manufacturing readiness, and lifecycle management of automotive semiconductor products.

Candidates with demonstrated success in automotive IC development for fabless semiconductor companies, supported by strong combination of product engineering, ATE test expertise, manufacturing operations and reliability qualification experience will be highly regarded.

Key Responsibilities

- **Product Development & New Product Introduction**
 - Lead automotive semiconductor products from tape-out through qualification, release, production ramp, and mass production.
 - Drive engineering builds, characterization, pilot production, and manufacturing readiness activities.
 - Collaborate closely with Design, Test, Reliability, Quality, Foundry, and OSAT teams to ensure successful product industrialization.
 - Support product release and production transfer activities.
- **Product Characterization, Validation & Debug**
 - Perform product characterization and electrical validation activities.
 - Support debug and bench evaluation for new products. and customer issues.
 - Correlate bench results with ATE and production test data.
- **Product Lifecycle Management**
 - Own product lifecycle activities throughout development and high-volume manufacturing.
 - Drive yield improvement, quality enhancement and cost optimization programs.
 - Monitor product health through manufacturing, yield, reliability, and field performance indicators.
 - Lead technical disposition of non-conforming materials through MRB processes.
 - Drive engineering changes for process, package, material, test program, test hardware, manufacturing site, and supply chain changes.
 - Support customer complaint investigations, 8D problem solving, corrective actions, and continuous improvement program Product



Job ID

REF10477Z

Field of work

Engineering

Location

Singapore

Leadership level

Leading Self

Legal Entity

AUMOVIO Singapore Pte. Ltd.

Qualification & Reliability

- **Product ATE Test Program Optimization**

- Drive production ATE test program optimization to achieve optimal balance of quality, test coverage, throughput, and cost.
- Collaborate with Design and Test Engineering teams to improve product testability and defect screening effectiveness.
- Support ATE program correlation, qualification, and production deployment.
- Lead test time reduction, multisite optimization, and test coverage improvement initiatives.

- **Technical Support for New Business Acquisition**

- Provide technical manufacturing support during new business acquisition, RFQ, and customer engagement activities.
- Support product cost modelling, manufacturing assumptions, and technical feasibility assessments during quotation and project planning phases.

Your profile

Required:

- Bachelor's, Master's, or PhD in Electrical Engineering, Electronics Engineering, IC Design, Device Physics, or related fields.
- Minimum 5+ years (Senior Engineer) or 8+ years (Principal Engineer) of semiconductor industry experience in Product Engineering, Test Engineering, Yield Engineering or Reliability Engineering.
- Experience in product development in fabless semiconductor companies and working with manufacturing partners (Foundry and OSAT) are highly preferred.
- Self-motivated, hands-on team player with a strong ownership mindset, capable of delivering results in a dynamic and rapidly growing startup environment.
- Strong collaboration, communication, and interpersonal skills, with the ability to work effectively across global and multicultural teams.
- Excellent analytical and problem-solving skills, combining data-driven decision-making with sound engineering judgment.

Preferred Technical Expertise:

- Product engineering, NPI execution, and product lifecycle management.
- Strong understanding of IC functionality, electrical specifications, system applications and product performance requirements.
- ATE test program development, release, optimization, and production support, preferably on Advantest platforms.
- Knowledge of semiconductor manufacturing processes including Wafer Sort, Assembly, Final Test, Reliability, and Quality operations.
- Experience in statistical techniques in analyzing yield, test and manufacturing data.
- Familiarity with AEC-Q100 qualification and automotive reliability requirements.
- Working knowledge of APQP, PPAP, FMEA, 8D, IATF 16949, and ISO

26262.

- Experience with semiconductor failure analysis techniques.
- Knowledge of advanced screening and data analytics methodologies including PAT, SBL, Clustering Analysis, and Statistical Screening.

Our offer

Ready to take your career to the next level? The future of mobility isn't just anyone's job. Make it yours! **Join AUMOVIO. Own What's Next.**

About us

Since its spin-off in September 2025 AUMOVIO continues the business of the former Continental group sector Automotive as an independent company. The technology and electronics company offers a wide-ranging portfolio that makes mobility safe, exciting, connected, and autonomous. This includes sensor solutions, displays, braking and comfort systems as well as comprehensive expertise in software, architecture platforms, and assistance systems for software-defined vehicles. In the fiscal year 2024 the business areas, which now belong to AUMOVIO, generated sales of 19.6 billion Euro. The company is headquartered in Frankfurt, Germany and has about 87.000 employees in more than 100 locations worldwide.