

Failure Analysis of Microelectronic Products and Systems

As technologies and products become more complex, the resulting failure mechanisms and analyses to investigate them also increase in complexity. Eurofins EAG Laboratories has the engineering expertise coupled with a significant investment in advanced failure analysis tools and capabilities to help you solve your most challenging issues. We provide comprehensive failure analysis services across a wide range of industries, including semiconductor, automotive, aerospace, military, medical devices, consumer electronics, manufacturing, and industrial sectors. Our experience spans from components and devices used in advanced applications in AI, IoT, automation, aerospace/military as well as products used in commercial/commercial setting such as smart meters, consumer electronics, medical devices, automotive systems, home appliances, and even electronic toys. We perform a thorough analysis of the failure, identify the failure mechanism, why the failure occurred, and offer recommendations on how to prevent future failures.



Our analytical services include:

- Comprehensive technical reports
- Quality assessment
- Construction analysis
- Multi-disciplinary investigations



Using top down deductive analysis techniques, Eurofins EAG Laboratories has proven expertise in examining and identifying problems related to:

- Manufacturing defects
- Field/customer returns
- Reliability and quality issues
- Design and performance validation
- Differentiation of ESD/Electrical overstress (EOS)
- Contamination and corrosion issues

From Targeted Testing to Full Root Cause Support

The ultimate goal in failure analysis is to arrive at an accurate determination of the cause of the failure. Eurofins EAG Laboratories has a proven, methodical process for performing failure analysis. We can efficiently perform individual tasks or services that you require or customize a more comprehensive analytical plan based on your sample, failure and end intent. For all levels of effort, we use advanced tools and techniques coupled with expert interpretation to provide insight into the investigation and product failure.

Technique-Level Support

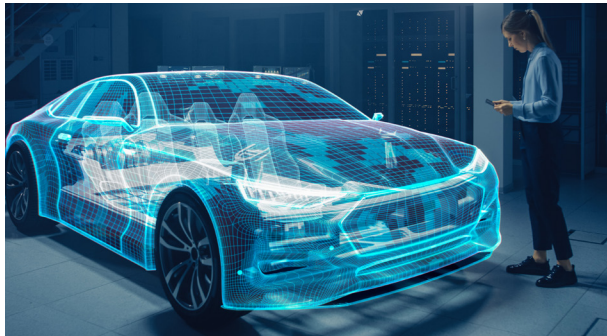
This is a focused approach designed to include one or more specific analysis techniques to understand, characterize or determine a defined task/need.

Turnkey Solutions

Perform defined and established scope of analysis which may include failure mode verification, non-destructive package integrity and internal visual examination, fault isolation techniques to localize the failure to a specific site and physically identify and characterize the failure mechanism.

Consultation

Lead and manage complex projects to uncover the root cause of failure, develop effective corrective actions, and provide advanced engineering support for design validation, product improvements, and long-term reliability solutions.



Why Choose Eurofins EAG Laboratories?

Eurofins EAG Laboratories offers specialized support and services designed to accelerate your time to market, bridge gaps in equipment and technical expertise, and minimize the risks associated with product development. With deep expertise in failure analysis and advanced product technologies, we provide comprehensive solutions ranging from targeted techniques to full turnkey and root cause investigations. Our extensive suite of cutting-edge equipment enables precise inspection, analysis, and fault isolation for even the most complex challenges. Every service is tailored to meet your specific project requirements.

