



Failure Analysis of Microelectronic Products and Systems

We can analyze your electronics products for any and all types of failures and help you prevent future failures.

As technologies and products become more complex, the resulting failure mechanisms and analysis also increase in complexity. Eurofins | EAG Laboratories has the engineering expertise coupled with a significant investment in advanced failure analysis tools and equipment to help you solve your most complex issues. We can provide comprehensive failure analysis of electronics products across a wide range of industries including automotive, energy, consumer and mobile, networking, and medical.

We perform a thorough analysis of the failure, identify the failure mechanism and why the failure occurred, and offer recommendations on how to prevent future failures. Our analytical service includes:

- Comprehensive third party reports
- Reverse engineering
- Quality assessment
- Competitor or construction analysis
- Full causal analysis

Using top down deductive analysis

techniques, Eurofins | EAG Laboratories has proven expertise in examining and identifying problems related to:

- Solder joint
- PCB and board level failures
- Differentiation of ESD/Electrical overstress (EOS)
- Manufacturing defects
- Field/customer returns
- Contamination and corrosion issues

Failure analysis levels for service

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 of failure analysis that is efficient but can be customized for your needs. 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

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

Turnkey

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

Consultation

Lead a complex project to determine root cause of

a failure, define corrective actions, design/product validation or improvements and other advanced engineering support.

Why Eurofins | EAG Laboratories?

Eurofins | EAG Laboratories provides the specialized support and services you need to accelerate time to market, fill equipment and expertise gaps, and manage risk associated with product development.

- Expertise in failure analysis with advanced product technologies
- Comprehensive services from technique specific to turnkey and root cause support
- Wide range of equipment for inspection, analysis, and fault isolation of complex projects
- Customized services to meet your specific needs

Industry/Sector

- Manufacturing
- R&D
- Military
- Aerospace
- Automotive
- Medical Device
- Semiconductor
- Industrial
- Consumer



Examples

- LED products
- Smart meters
- Consumer electronics
- Medical devices
- Automotive safety systems
- Military hardware
- Counterfeit components
- Home appliances
- Electronic toys

