

Destructive Physical Analysis (DPA)

With more than 40 years of experience performing Destructive Physical Analysis, we can test your product for all standards.

DPA is routinely used by the aerospace industry in order to qualify electronic components to Class "S". More and more commercial applications are using DPA screening to dramatically increase the reliability of their products in the field. It is the process of testing and inspecting of a component in conformance with applicable military standards and design requirements. Higher reliability electronic components are often required to operate for long periods of time, having little or no opportunity for replacement.

DPA is a systematic detailed examination of parts during various stages of physical disassembly. Parts are examined for a wide variety of design, workmanship, and processing problems that may not show up during normal screening tests.

Eurofins | EAG Laboratories (formerly SEAL Laboratories) has been performing Destructive Physical Analysis (DPA)



Fused open bond wire inside an integrated circuit

for over 40 years on materials used in aerospace, commercial, military, and government applications. Our facilities are complete and DLA certified for Residual Gas Analysis/Internal Water Vapor (RGA), Particle Impact Noise Detection (PIND) X-Ray Radiography and SEM Inspection. Additional testing capabilities include External Visual Inspection, Hermetic Seal Testing (Fine Leak, Gross Leak), Delid/ Decap/Case Removal, Internal Visual Inspection, Bond Pull Strength, Die Shear, SEM Inspection and Microsectioning.

Types of Parts Inspected at Eurofins | EAG Laboratories

- · Integrated circuits
- Transistors
- Diodes
- · Capacitors
- Resistors
- Relays
- Fuses

DPA Specifications

- MIL-STD-883
- MIL-STD-1580
- MIL-STD-750
- SSQ-25000
- customer specifications



Cross-section of an encapsulated ceramic capacitor Arrows show crack on the lead attach solder



Radiograph of a bent contact pin inside a connector



