











Services for the Consumer Electronics Industry

For over 30 years EAG Laboratories has supported customers creating products for consumer electronics such as mobile devices, tablets, computers, wearables, and health tracking devices. We offer a comprehensive suite of testing techniques for characterization of materials at any stage of the design or production process.

Electronic System Testing

Our team offers the engineering expertise to design, develop, test, analyze, and debug the most innovative products using ATE, System level testing, and reliability.

Advanced Microscopy

Microscopy techniques are essential to investigate sample micro-structure, morphology, particle size, particle coatings and defects in thin/thick film or bulk substrate samples.

Metallurgical Analysis

Metallurgical investigations including fractures, fatigue, corrosion, contamination, wear, heat, and stress related failures.

Coatings Analysis

Depth-specific distribution measurements and chemical survey characterizations.

Failure Analysis

Failure Analysis for an extensive list of applications ranging from IC deprocessing and product failures to chemical-related investigations. EAG can localize your defect and determine the root cause.

Coatings Analysis

Depth-specific distribution measurements and chemical survey characterizations.

Purity Certification

Inspection of raw materials during key phases of manufacturing can aid in the identification and elimination of unwanted impurities in final products.

Surface Analysis

Solving surface chemistry issues with adhesion and bonding, questions regarding surface cleanliness and investigations regarding morphology and topography of materials' surfaces.

Polymer Characterization

Providing expertise and experience in polymer-related challenges and offer a complete range of analyses for polymers and composites.

Sensitizers Testing

We use various techniques to determine if the presence of any transferred chemicals are skin sensitizers with potential for toxic, allergenic or abrasion concerns.

Litigation Support Services

Providing scientific expertise, data interpretation, analytical litigation support, or provide an expert witness testimony.

Stage	Technologies	Typical Services
Finished Products	AR/VR products Gaming Consoles Computer Networking Devices Data Storage Hardware	Product Safety & Bio-compatibility Failure Investigations Lifetime Testing Litigation Support and Product Liability
Devices and Platforms	Artificial Intelligence ASIC's PCB Assembly Discretes	Wafer & Chip-Level FA ATE, ESD & Reliability Warpage Measurements Defect Localization
Modular Components	Battery LED's User Interface Accelerometer Sub-assemblies	Failure Investigation Vendor Qualification Materials Characterization Stress Testing
Early Stage Materials	Compound Semiconductors MEMs & NAND structures Alloys Plastics Glass & other raw materials	Advanced Microscopy Coatings Analysis Materials Characterization Purity Services Vendor Qualification/Comparison

Consultation and Project Management

We understand the need for first-to-market breakthrough technologies and EAG can collaborate to provide results-driven solutions to the most complex of analytical investigations. Our experienced experts will work with your team to troubleshoot, and choose the right material for your application, or improve a manufacturing process.

Global Support

We support over 4,000 clients in 20+ facilities located in the United States, Europe and Asia using more than 2,500 instruments worldwide.



Typical Techniques for Consumer Electronics Testing		
<u>AFM</u>	<u>GDMS</u>	Physical Testing
ATE Test	<u>GPC</u>	<u>Profilometry</u>
ATG (RBS)	<u>HPLC</u>	<u>Raman</u>
Atom Probe	ICP-MS	<u>RBS</u>
Atomic Absorption	ICP-OES	<u>Reliability</u>
<u>Auger</u>	<u>IGA</u>	RGA
Cathodoluminescence	Ion Chromatography	<u>SEM</u>
<u>Circuit Edit</u>	<u>LA-ICP-MS</u>	SIMS
<u>DPA</u>	<u>LC-MS</u>	<u>TEM</u>
<u>Dual Beam</u>	<u>LIBS</u>	Thermal Analysis
<u>EBSD</u>	Litigation Support	TOF-SIMS
<u>EMC</u>	<u>Metallurgy</u>	<u>TXRF</u>
<u>Environmental</u>	<u>Nanoindentation</u>	<u>UV/VIS/NIR</u>
<u>ESD</u>	NMR	Warpage Analysis
Extractables & Leachables	Optical Microscopy	XPS/ESCA
Failure Analysis	Optical Profilometry	XRD
<u>FTIR</u>	Organic FA	XRF
<u>GC-MS</u>	<u>PCB</u>	XRR



