

Aerocyonics Capability Statement



Aerocyonics, Inc.

Launching Creative Innovation & Security



Aerocyonics Imaging, LLC.

Intelligent Multidimensional Transformation

An Aerocyonics, Inc. Affiliate

About Aerocyonics, Inc. and Aerocyonics Imaging, LLC

Our staff provides expertise in technology sectors such as cyber physical systems security, hardware & software assurance, counterfeit avoidance and detection, and advancement of talent in topic areas. We perform critical work in domains such as system security engineering, supply chain risk management, hardware assurance, cyber, data analytics, machine learning, education, training, and more. Our commitment to serving customers and to providing quality products and services at competitive prices is unwavering. Our highly skilled technical staff are committed to providing value to our customers and solving the challenges that matter most.

➤ **Consulting:**

- Cyber Physical Systems Security
- Supply Chain Risk Management
- Counterfeit Parts Avoidance and Detection
- Systems Security Engineering, Security Enterprise Assurance (OSD/Dept. of Defense and Dept. of Energy)
- Risk Management Framework (RMF)
- Hardware Assurance (HwA), and Test Evaluation
- Data Analytics, Modeling & Simulation

➤ **Advanced Technology – Development and Commercialization:**

- Ultrafast Laser Nano-Machining
- Design Validation Tools
- Integrated Manufacturing Tools
- Wafer/Die/Assembly/System Tag and Trace
- Analytical software tools for multimodal analysis and natural language processing with artificial intelligence
- Non-Von Neumann Computing Architectures beyond Moore's Law
- 3D Nano-Imaging
- Artificial Intelligence
- Machine Learning
- Microelectronic Reverse Engineering (Die to Netlist)

➤ **Training and Advancement of STEM Education:**

- Industry Workshops
- Workforce Development
- STEM Literacy (Diverse, Equitable, Inclusive)
- High School Curriculum and Educator Training

Aerocyonics, Inc. Company Data

DUNS Number: 116835597

CAGE Code: 87FJ2

SAM UEI: TJW5NDLH8TN1

Active JCP Certification# 0080884

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<https://Aerocyonics.com>

Aerocyonics Imaging, LLC. Company Data

DUNS Number: 111805764

CAGE Code: 9NER9

SAM UEI: T8GDZT7AP3A2

NAICS:

- 334511 Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
- 334516 Analytical Laboratory Instrument Manufacturing
- 334519 Other Measuring and Controlling Device Manufacturing
- 541330 Engineering Services
- 541611 Administrative & General Management Consulting
- 541618 Other Management Consulting Services
- 541690 Other Scientific and Technical Consulting Services
- 541910 Marketing Research & Public Opinion Polling
- 541990 Professional, Scientific & Technical Services
- 541713 Research and Development in Nanotech
- 541715 Research and Development in Physical, Engineering, and Life Sciences

Current & Past Performance

- Counterfeit Parts Test Laboratory Evaluation – U.S. ARMY DEVCOM AVMC/JFAC contract focused on evaluating the proficiency of test laboratories and the effectivity of counterfeit defect detection utilizing AS6171 test methods.
- DMEA eNVM Study at GlobalFoundries – Conduct an analysis and feasibility study of onshoring embedded non-volatile memory.
- GlobalFoundries U.S. Inc.: Support of Semiconductor Fabrication Assurance (SFA) and Rapid and Assured Microelectronics (RAMP II) to develop and implement improved enterprise architecture at GlobalFoundries' manufacturing facility. The improved architecture will employ a formal, quantified assurance approach to identify, analyze and address cyber and hardware assurance risks to intellectual property, manufacturing activities & products.
- DMEA Phase 1 SBIR. Intelligent Automatic Serial Sectioning using Ultra Short Pulse Laser Polygon Scanning. Integrates ultrashort pulse laser technology with polygon scanning, laser induced breakdown spectroscopy (LIBS), patented gas-processing, machine learning (ML) and Artificial Intelligence (AI) machine vision algorithms for controlled, automated, high-precision, high-throughput material ablation.
- DMEA Phase 1 SBIR: Intelligent Ultrafast Laser/Imaging System R&D. The Intelligent Ultrafast Laser/Imaging System integrates the state-of-the-art femtosecond laser technology, microscopy and artificial intelligence to provide a high-throughput, high-precision solution for smart, controlled material removal, sample preparation, surface restructuring and 3D tomography creation.
- AFRL Subcontract: Created Two Volume Counterfeit Parts Avoidance & Detection Guidebook for the DoD Enterprise Program Officers and Contracting Officers. Formed and led SAE G-32 Cyber Physical Systems Security Committee that includes Hardware and Software Assurance Subcommittees.

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