QUADRUS CORPORATION

Engineering Consulting | Software Development
Systems Engineering | System Integration and Test
Research and Development| Additive Manufacturing

Quadrus Corporation provides expert Multidisciplinary Engineering, Consulting, and Staff Augmentation to complex defense, space, and commercial projects. We are there from initial requirements development through verification, certification, and deployment. From research and development to design, testing, and production, our engineers are at the forefront of using cutting edge technology to support and meet the needs of our valued customers. Trust the process– because ours allows us to deliver with reduced cost and increased production efficiency in order to equip our customers for mission success. In business since 1995, we have served Army, NASA, school systems, nonprofits, and commercial customers with a solid track record of delivering requirements on time, on budget, and with zero defects.

DIFFERENTIATOR

Generic Interface Test Computer (GenITC)

- Communications breakout box and a versatile communications and emulation tool
- System Integration Lab (SIL) in-a-box
- Lower cost and shorten schedule
- Lower technical risk and increase quality
- Fully-configurable interface emulator, simulator, traffic-interceptor, and driver

Our patent-protected products are cutting edge and valued by our customers in defense and the space industry. We have products which are ideal for interface development, integration, test, and V&V (verification and validation) roles. Our flagship software products consist of: GENeric Interface Test Computer (GenITC) and DICE. GenITC is designed as a breakout box / interface emulator / component simulator for point-to-point communications from a single node to a different single node. Those same capabilities are found in a multi-node, multi-point environment which is known as DICE. GenITC Technology is a communications breakout box that is used as a versatile communications and emulation tool that can be configured to emulate any interface and system behavior. GenITC can pass all communications from one interface to the other. This allows for GenITC to be inserted nearly invisibly into a communications path. GenITC allows the user to have control over every message that passes through. It also performs as a component simulator / emulator.

NAICS

323111 – Commercial Printing (except Screen and Books)
332999 – All Other Misc Fabricated Metal Product Manufacturing
332510 – Hardware Manufacturing
332710 – Machine Shops
333249 – Other Industrial Machinery Manufacturing
333999 – All Other Misc Manufacturing
336415 – Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing
511210 – Software Publishers
541513 – Computer Facilities Management Services
541519 – Other Computer Related Services
541715 – Research and Development
541330 – Engineering Services
541511 – Custom Computer Programming Services
541512 – Computer Systems Design Services
561720 – Janitorial Services
611420 – Computer Training
611430 – Professional and Management Development

CORE COMPETENCIES

ENGINEERING SERVICES

Quadrus Corporation's Engineering Services Division has provided our customers with expertise in all phases of Avionics and Ground Systems development, integration, and test for 25+ years. Our engineers have helped integrate and test initial versions of the THAAD weapons systems, provided expertise in upgrading the THAAD Launcher, provided test tools and expertise for preliminary integration and test of the Raytheon EKV, flight test at Kwajalein Atoll for the PLV program, supported GMD launch control, battle management, and missile integration, test and emplacement, supported integrated flight testing for ABL, led instrumentation and data acquisition for both the Constellation Upper Stage Test Article and Flight Article, led development of Delta IV ground systems used for integrated booster and second stage factory acceptance tests, integrated vehicle tests and launch control, and have provided expertise to the Avionics integration and test of the Space Launch System by providing specialized test equipment for individual Avionics boxes (Flight Computer, Telemetry Controller), system testing tools, test software development, and lab integration. We have helped our nation be better prepared to defend against ballistic missile threats and are now helping our country go back to the Moon and beyond.

SOFTWARE

- Skilled in Avionics Simulations (Boeing EUS Simulation Rack), Electrical Ground Support Equipment (EGSE), Special Test Equipment (STE), Instrumentation, and Telemetry
- Worked within the Boeing EUS Simulation team to provide avionics simulation of EUS Data Acquisition Unit (EDAQ)
- Extensive experience in the development and integration of software for distributed training and simulation systems
- Highly qualified in GMD tactical communication

SYSTEMS

- Skilled in Hardware and Software-in-the-Loop test environments
- Performed in system architecture, requirements development, and system testing
- Unique perspective into the complexity of developing and implementing engagement solution logic

TEST

- Skilled Avionics Hardware Test Engineers
- Highly experienced in the performance of System Independent Verification and validation operations, procedures, and testing
- Regularly perform as a part of Test Operations Teams for various projects

ADVANCED MANUFACTURING

Our company has experience in additive manufacturing components made from GRCop-84, Inconel 625, Inconel 718, Haynes 282, Monel K500, AlSi10Mg, AlSi12Mg, Scalmalloy® (Quadrus Corporation's Additive Manufacturing is the only North American company certified by Airbus to manufacture items from their proprietary Aluminum alloy), silicon carbide-reinforced AlSi10Mg, Ti6Al4V, and W24Re. We are experts in developing selective laser melting (SLM) process for new materials. Quadrus Corporation's Additive Manufacturing team has a long history of technology development support to both government and industry customers. Quadrus Corporation's Additive Manufacturing serves many valued customers including NASA, US Navy, MDA, US Army, and many other space and defense companies. Our mission is to be an industry leader in the development and application of metal additive manufacturing.

PAST PERFORMANCE

Space Launch System (SLS)	Data Analysis and Reduction Tools (DART)	BA330 Inflatable Orbital Habitat	Radio Frequency (RF) Generation Technology
Raegan Test Site Telemetry (RTM) Program	Terminal High Altitude Area Defense (THAAD)	National Missile Defense Payload Launch Vehicle (PLV)	Ground Based Interceptor (GBI)
Multiple Kill Vehicle (MKV)	Constellation (Ares I and Ares V)	NASA SBIRS NAVY SBIRS	Aviation and Missile Research Development Engineering Command Propulsion Lab

ADDITIVE MANUFACTURING

Quadrus Corporation acquired the Advanced Manufacturing Division in April 2020 to expand into the additive manufacturing and advanced engineering markets. We are currently expanding this division and will showcase a newly renovated 5000 sq ft lab space in 2022.

Our company has a long history of technology development support to both government and industry customers. Our mission is to be an industry leader in the development and application of metal additive manufacturing.

SPECIAL EQUIPMENT

- Four Single-Laser Concept Laser M2 Laser Cusing Machines (argon process gas)
- One Dual-Laser Concept Laser M2 Laser Cusing Machines (argon process gas)
- MLab Laser Cusing Machine (argon process gas)
- Two Concept Laser QM Powder Sieving Station for metal powder sieving
- GE SG Series UPS
- Gromax Enterprises W-V500 Wire EDM
- Makino DA300 5-Axis CNC
- Lucifer Furnaces 55AM-121212 heat treatment furnace (argon atmosphere)
- Across International GCF1200 Atmosphere Furnace
- Nabertherm GmbH N 41/H
- L&L Special Model QT1224 65 Gallon, Agitated, and Heated Quench Tank
- Keyence VL-500 3D Scanner Coordinate Measuring Machine
- Tinius Olsen H50KS tensile test machine
- Starret 3814 hardness tester
- Full Metallography Lab (specimen sectioning, mounting, grinding/polishing, and etching)
- Keyence VHX 7000 Digital Microscope
- Torbal AGCN200 Scale for Archimedes Density Measurements
- Mitutoyo SJ-210 Surface Roughness Analyzer
- Metal AM Powder Flow Analysis equipment
- Across International PQ-N4 Planetary Ball Mill
- Retsch AS 200 digit cA Sieving Station for metal powder sieving
- Wet and Dry Media Blasters
- Pressurized water flow testing system
- National Instruments CompactDAQ system with precise temperature, pressure, and flow sensing capability
- LabRAM Resodyn Acoustic Mixer

PRINTING MATERIALS

GRCop-84
W-24Re
W-5Re
HR1
Scalmalloy
C103
Inconel 625
Inconel 718
Monel K-500
17-4 PH Stainless Steel
316L Stainless Steel
Ti-6Al-4V
Haynes 282
NiCrAl
Ni20Cr
Molybdenum
Al-SiC

4wt% TiC Reinforced 316L Stainless Steel

QUADRUS CORPORATION

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HUBZone
Historically Underutilized Business Zone
CERTIFIED

SBA Certified HUBZone company

Small Disadvantaged Business

Minority Owned Business

BBB ACCREDITED BUSINESS

BBB Rating: A+