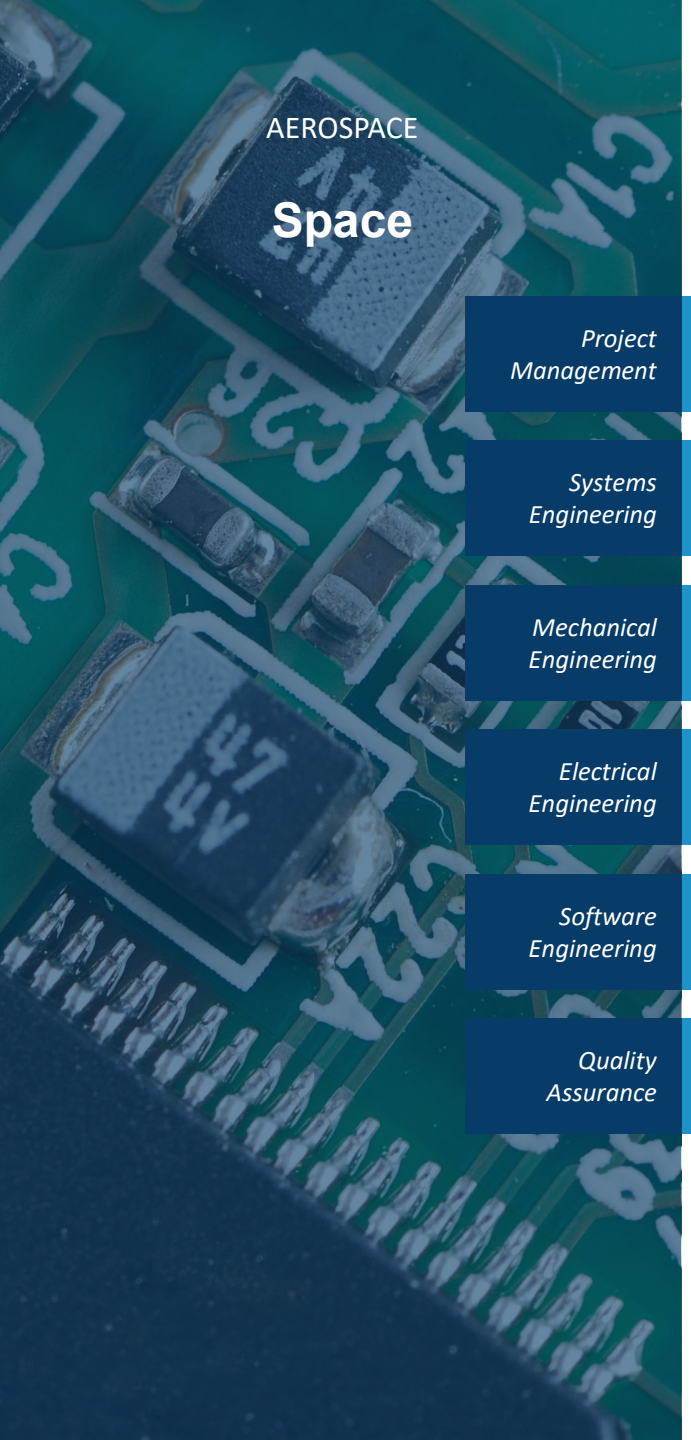

AEROSPACE

Space

Project Management

Systems Engineering

Mechanical Engineering

Electrical Engineering

Software Engineering

Quality Assurance

PAYLOAD PROCESSING ELECTRONICS (PPE) FLIGHT UNIT FOR THE ISS

APPROACH

- Implement agile sprint planning
- Develop requirements for and design, build, and test a lab environment PPE backplane and test fixture
- Develop requirements and test approach for a flight PPE backplane and mechanical enclosure
- Design, build, and test flight PPE backplane and mechanical enclosure integrated with 3rd party VPX cards

RESULTS

- Established an efficient agile development process to quickly deliver a PPE lab unit for client use
- Established an efficient agile development process to quickly design and develop a VPX backplane and mechanical chassis, then build, test, and deliver a PPE flight unit to be sent to the International Space Station (ISS) for up to a year
- Created software to use for PPE flight unit verification testing
- Created traceable system requirements that meet Mission Class D requirements

KEY TOOLS & TECHNOLOGIES

- VITA VPX connectors for interface with third-party UDRT and X-ES low voltage power supply (LVPS)
- Ethernet (RS-485)
- UART
- JTAG

ALTEN TECHNOLOGY