

PLATFORM ELECTRICAL AND PAYLOAD
ENGINEERING SUPPORT

Aerospace

Systems
Engineering



Electrical
Engineering



PAYLOAD HOSTING PLATFORM DEVELOPMENT SUPPORT FOR INTERNATIONAL SPACE STATION (ISS)

APPROACH

- Design, develop, analyze, and test electrical devices, circuits, harnesses, and equipment, as well as electrical systems, for spaceflight payload system and experiment hardware
- Lead multidisciplinary integration activities, including verification and safety requirements, between payload developer (PD) organizations, client's ISS external platforms, and the ISS Program (ISSP)

RESULTS

- Developed, integrated, and supported space-rated avionics hardware in support of low Earth orbit payload hardware, primarily in conjunction with the ISS program, to NASA standards
- Developed payload interface and integration requirements, created verification and validation matrix, integrated various mission configuration payload technical parameters, developed test plans, and performed real-time payload operations issue resolution
- Developed next-generation external payload hosting solutions for commercial and government low Earth orbit applications

KEY TOOLS & TECHNOLOGIES

- NASA software systems and safety development requirements and standards, including NPR 7150 NASA Software Engineering Requirements
- NASA/ESA SRP, NASA ISS, NASA Veritas
- ALTIUM
- MATLAB
- Jira

ALTEN TECHNOLOGY