Commercial

- Project Management
- Mechanical Engineering
- Systems Engineering
- Electrical Engineering
- Software Engineering

HARDWARE TO CONTROL THERMAL TEMPERATURES AND BLACKBODIES HEATED/COOLED

APPROACH

- Developed custom-built hardware to move a pallet through a chamber driven to different temperatures
- Created secondary calibration system to improve radiometric accuracy
- Custom pallet firmware communicated with 64 cameras

RESULTS

- Primary calibration system utilized PLC/ThermoStream to control system that calibrated thermal sensors on the cameras
- Secondary calibration system built using custom PAC hardware and black bodies to finalize calibration and increase radiometric accuracy
- Pallet firmware developed to allow high volumes of cameras to be calibrated at the same time

KEY TECHNOLOGIES

- FPGA, Verilog, C++ for the pallet
- PLC ladder logic for primary calibration hardware
- PAC code written in C for device control at secondary calibration

ALTEN TECHNOLOGY