

Cool solutions to thermal problems.

Rocky
Research

COMMERCIAL | INDUSTRIAL | DEFENSE

Heat Transfer and Electronics Cooling: Electronic Enclosures

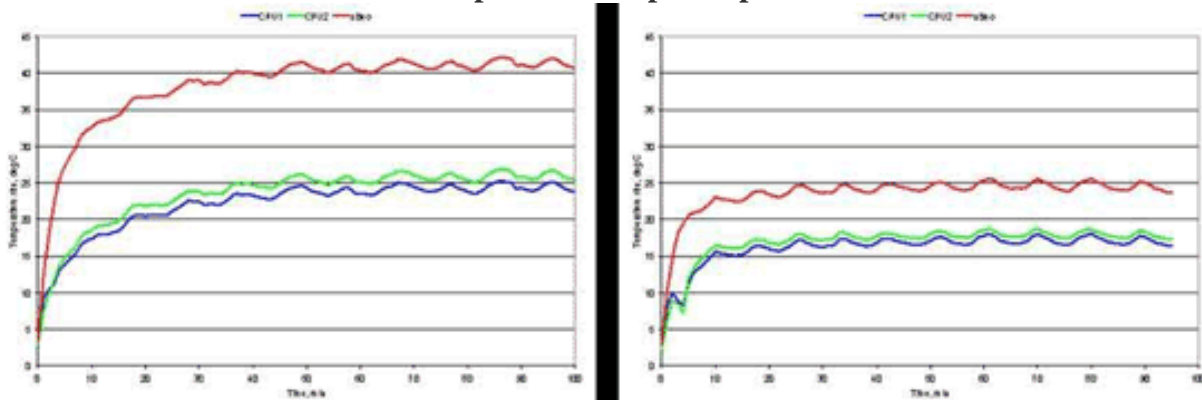
Over the last 20 years, heat transfer technologies have been utilized more and more for electronics cooling applications. As microchips grow smaller and hard drives work harder – thermal problems become larger and harder to solve. That’s where Rocky Research comes in. While traditional approaches using natural convection and forced-air cooling strain to deal with current thermal loads, our experienced professionals are finding innovative ways to package and cool electronics as effectively as possible.

Electronic Thermal Analysis and Solutions

System Level Technologies Used:

- Identification and Recognition of Thermal Loads (TC’s and FLIR)
- Use of Air Flow Optimization (CFD)
- Replacement of Existing Thermal Management Systems With More Efficient Systems
- Integration of Intelligent Thermal Management Control
- Verification and Validation of the Applied Solutions at Different Ambient Conditions and Thermal Loads

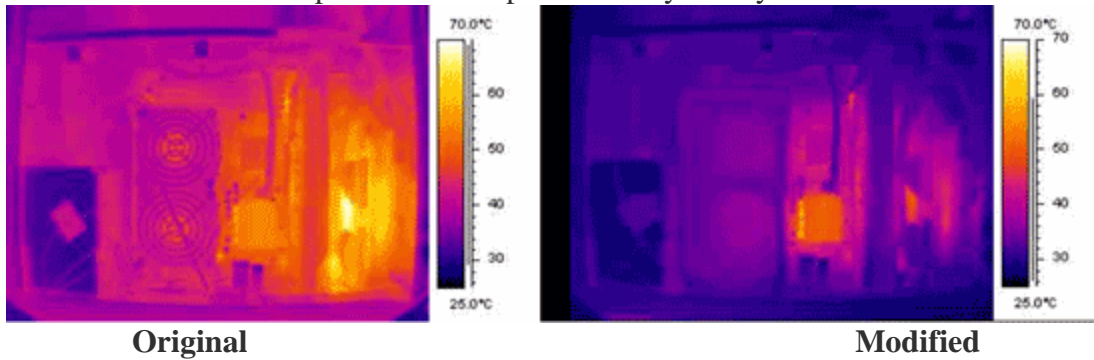
Measured Temperature Map Comparisons charts



Original Configuration

Modified Configuration

Thermal Solution Results Thermal Image Comparisons Open Case Computer
 Components temperatures lowered by as much as 15°F
 after improvements implemented by Rocky Research



Thermal Solution Results NEMA Box Sealed Computer Baseline and Modification Results

