THERMAL MANAGEMENT OF A SINGLE PRINTED CIRCUIT BOARD WITH ELECTRO-OPTICAL COMPONENTS IN AN ENCLOSURE

Drs. Amy Fleischer and Randy Weinstein

This project is an extension of the project described in the abstract "Thermal Management of a Single Circuit Board with Electro-Optical Components in Forced Convection." In this variation on that project, the effects of enclosure design on the thermal interaction of electro-optical components are experimentally studied. A single vertically orientated circuit board is located within an enclosure. The thermal behavior of the components within the standard enclosure, and within an enclosure modified to behave as a heat sink is examined. The difference in thermal behavior for standard FR4 circuit board material and copper clad FR4 circuit board materials will be examined.