

THERMAL MANAGEMENT OF PACKED CIRCUIT BOARDS WITH ELECTRO-OPTICAL COMPONENTS IN FORCED CONVECTION

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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 board packing on the thermal interaction of electro-optical components are studied. Multiple boards, each with electrical and optical components are experimentally studied in free and forced convection to determine the effects of geometric proximity on thermal behavior. The difference in thermal behavior for standard FR4 circuit board material and copper clad FR4 circuit board materials will be examined.