

## Numerical Study of Heat Release of the Symmetrically Arranged Extruded-Type Heat Sinks

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**Abstract :** In this numerical study, we want to present the design of highly efficient extruded-type heat sink. The symmetrically arranged extruded-type heat sinks are used instead of a single extruded or swaged-type heat sink. In this parametric study, the maximum temperatures, the base temperatures between heaters, and the heat release rates were investigated with respect to the arrangements of heat sources, air flow rates, and amounts of heat input. Based on the results we believe that the use of both side of heat sink is to be much better for release the heat than the use of single side. Also from the results, it is believed that the symmetric arrangement of heat sources is recommended to achieve a higher heat transfer from the heat sink.

**Keywords :** heat sink, forced convection, heat transfer, performance evaluation, symmetrical arrangement

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