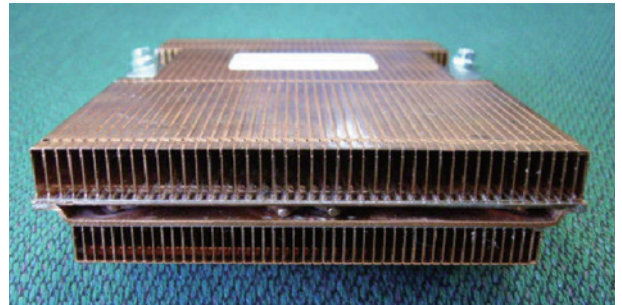
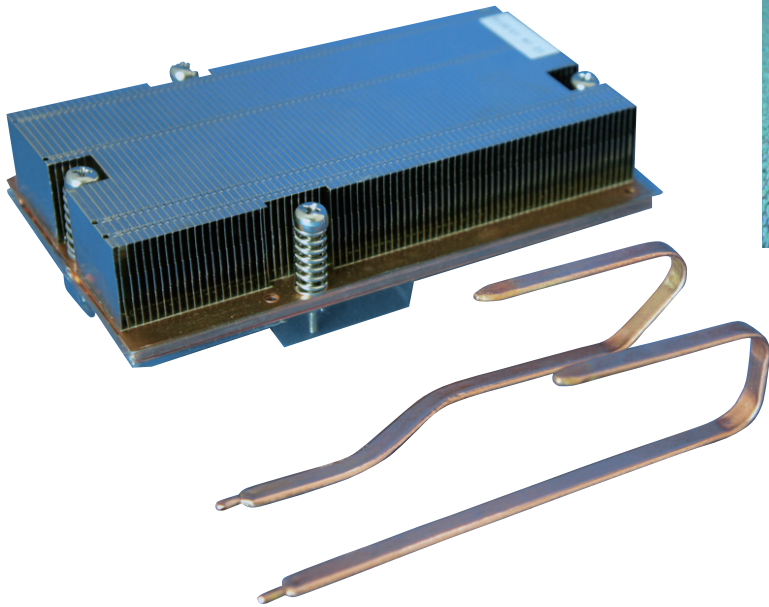
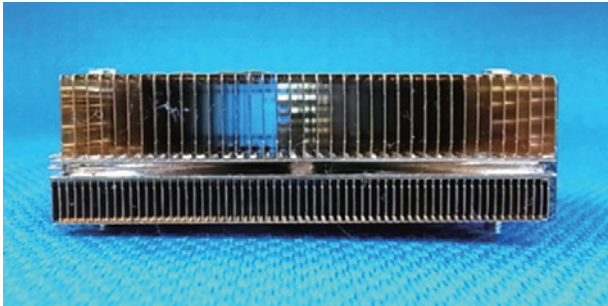


Heat Pipe Embedded Design



Heat Pipe Embedded Design:
Heat pipe embedded design is most recommended for cooling products with height constraints. In order to secure enough cooling area (fin area), the heat sink needs to spread out in horizontal orientation. However, the heat source is not always as wide as the heat sink itself which creates a concentration of heat in certain area in the base of the heat sink. In such case, by embedding heat pipe in the base area, it can assist to spread heat evenly in the base and consequently transferring heat evenly to the fins to maximize efficiency of heat dissipation.

Vapor chamber which is a planar-type heat pipe is also a well known heat spreader often used in high-end applications.

A thermal performance comparison data of copper plate, vapor chamber and heat pipe embedded design shows that heat pipe embedded solution has lower thermal resistance than plain copper plate and performs as well as vapor chamber. Although Furukawa Electric was the first company to manufacture vapor chamber in the early 90's, we now recommend most customers to choose heat pipe embedded design because of the flexibility of design as well as cost optimization.

