Thermal Management for RF Amplifiers and Power Transistors

Heat sinks (or “heat plates” as they are commonly called when used with RF amplifiers) are the primary form of ***thermal management solution*** used today. Heat sinks are employed mainly to increase the surface area available for heat transfer from high-power RF semiconductor devices (e.g., RF power transistors, RF amplifiers), systematically reducing the device’s external case temperature, as well as its internal junction temperature. Richardson RFPD provides ***four different categories of heat sinks:*** board-level, bonded-fin, extruded, and liquid cold-plates.

Although soldering down RF power transistors to the amplifier heat plate provides the best overall thermal resistance characteristics, broadcast engineers generally prefer to bolt down the transistors for ease of long-term maintenance. Richardson RFPD therefore provides ***RF power transistor clamp solutions*** to help optimize the thermal resistance, and yet retain ease of maintenance.

Contact your local sales representative or learn more about Richardson RFPD online at www.richardsonrfpd.com.