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THERMAL ANALYSIS OF A SATELLITE BORNE ANTENNA

Abstract

Thermal design and analysis of a satellite borne antenna is introduced in this paper. Thermal control methods were adopted to help control temperature and a finite element model was built. According to the changes of the orbit heat and material parameters, computing cases were determined and computed. The analysis results showed that the temperature scope of the main structure is from -33 to 49, locating within the maximum temperature range -100 to 100 and leave enough design margins, which match the requirements of thermal design.