

## Heat Pipe Production and Life Performance Tests in Geosynchronous Telecom Satellites

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**Abstract :** Heat pipes one of the thermal control elements are used in communication satellites. A selection of the heat pipes of satellite thermal design will be emphasized how important and effective it is. In this article, manufacturing and performance control tests of heat pipes are reviewed from the current literature. The heat pipe is expected to function efficiently during all missions of the spacecraft from Beginning of Life (BOL) to End of Life (EOL). There are many parameters that are evaluated in manufacturing and performance control tests of the heat pipes which are used in satellites. These parameters are pressure design, leakage, noncondensable gas level (N.C.G), sine vibration, shock and static load capabilities, aging, bending, proof, final test etc. These parameters will be explained separately for the heat pipes in this review article and young researches working on the thermal control system of Geosynchronous Satellites systems can find easily related information in this article.

**Keywords :** communication satellite, heat pipe, performance test, thermal control

**Conference Title :** ICAHTPS 2019 : International Conference on Aerodynamic Heating and Thermal Protection Systems

**Conference Location :** Miami, United States

**Conference Dates :** March 11-12, 2019