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RESEACH ON HYBRID PEAK POWER TRACKING TOPLOGY AND STRATEGY FOR SATELLITE POWER SYSTEM

Abstract

Considering the characteristics of sequential switching shunt regulator with high reliability and low peak power tracking efficiency and the characteristics of maximum power point tracking with low reliability and high peak power tracking efficiency, this paper studied a scheme of peak power tracking for solar array, proposed a new topology with a hybrid control scheme that combined the ability of sequential switching shunt regulator and maximum power point tracking, and verified the topology and the hybrid control scheme by simulation, which can be a reference design for satellite power conditioning unit with high reliability and high peak power tracking efficiency.