

Optimized Configurations of Ka-Band Transponder Subsystem for ETRI's SATCOM System

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In order to optimize the configurations of Ka-band transponder subsystem, the trade-off design has been performed iterately with emphasis on the improving performances of the payload system as well as effectiveness of Satellite Communication (SATCOM) system operation. It is necessary to allocate performance to the transponder equipments and to keep providing the main services. It begins with analyzing the requirements and allocating performance parameters by establishing budgets for electrical and mechanical characteristics. In this paper, introduction of SATCOM system and finally optimized Ka-band transponder configuration that is to be used for preliminary design will be mainly presented.