ABSTRACT

PT Telkom Launched satellite Telkom 2 on 17th November 2004 by Rocket Ariane 5 ECA in Guyana, France. this satellite with 24 C – band transponder placed on 118° BT, design for 15 years usage to support PT Telkom Telecommunication network, in voice, picture , and data communication services. This satellite replace satellite Palapa B4 that expired in the late of 2004.

Satellite Telkom - 2 have a better characteristic than Palapa B4, it can be seen from the value of SFD, PAD, $EIRP_{Satelit\ Saturasi}$, PAD, IBO_{Total}, OBO_{Total},, etc. The result of this characteristic difference is the exceed in power usage. This power exceed is then optimize by using various modulation and coding technique, so that resulted the wider bandwidth. On this paper, is used excel application program to do the analysis and the analysis is focused on IDR (Intermediate Data Rate) carrier type, which is used almost 80% of satellite Palapa B4 and Telkom 2 services.

The purposes of this power optimization is to optimize the capacity usage of satellite Telkom – 2, therefore the exceed of capacity and bandwidth can be used by the other telecommunication services.