

ABSTRACT

Nowadays, telecommunication technology plays as an important role in human life. Information technology and telecommunication which are very fast need telecommunication quality that has the large capacity and high speed. To keep communication among BTS remain in best performance, so it can be done by allocation of the work frequency and design link budget in microwave network. In planning of network telecommunication, calculation of link budget and the use of diversity technique to ensure that the availability value after using diversity frequency is larger than availability before using the diversity frequency. The use of the frequency of diversity and increase the frequency of 6 % of the frequency of work, the frequency of 6 % produce values high frequency of (23.380 mhz) and frequency low of (21.620 mhz). From the results obtained the analysis availability with frequency increasing diversity on BTS Astambul with BTS Bincau of 99,98320 % to the frequency of high and 99,998195 % to the frequency of low the greater than the availability before the frequency of diversity 99,83115 %. While the results of the analysis on BTS Bincau and BTS Airport the availability of 99,99483 % to the frequency of high and 99,98418 % to the frequency of low the greater than the availability before the frequency of diversity 99,86465 %. Availability is used to ascertain that the system works well, So it can be concluded that the reliability on this system is at the optimal reliability and in this condition , communication micro network works good enough. Design and analysis of link budget use pathloss 5.0.

Keyword : Microwave, Link Budget, Pathloss 5, Frequency Diversity