

ABSTRACT

Population growth is increasing, so the need for mobile data access is also increasing. Telecommunication infrastructure that supports the flow and processing of information so that communication that is intertwined in each customer can run properly. The use of microwave devices in conducting data exchange requires good design. The design of sirahan microwave transmission network and Congkrang site located in Salam District, Magelang Regency uses pathloss 5.0 with a frequency of 23,000 MHz as a design comparison of ZTE. The result of the design uses pathloss 5.0 with rsl value -48.69 dBm, Fading Margin 18.31 dB, and Availability 99.99516%. Moderate design results from ZTE with RSL value -31.30 dBm, Fading Margin 35.20 dB, and Availability 99.99656%. The design results of ZTE are more optimal than design using pathloss 5.0 due to the limitations of antenna data. But availability values already meet ITU-R G.827 and F.1703 standards.

Keywords: link microwave, pathloss, availability.