ABSTRACT

The design of the link budget is an important part of the installation of this microwave transmission network. A thorough analysis was carried out from the initial stage to the location, namely the Sidodadi Masaran site with the Masaran Three Pillars site, Based on observations of the path profile for the transmission line to connect the Sidodadi Masaran site with the At the site of the Three Pillars of Masaran, the Fresnel area was found to be clean from obstructions. So that network planning can be carried out optimally. The link budget design will be implemented in a point-to-point microwave radio link from the Sidodadi Masaran site with the resulting Three Pillar Masaran site with a distance of 6,39 km. In the pathloss 5.0 design the author uses a microwave RTN 600 15G-SP_4s_16E1 15 GHz frequency with two types of antenna VHPX6A- 142 diameter 1,83 and VHLP2-15 antenna 0.61 meters in diameter, with transmitting power (Tx Power) 24,50 dBm and receiving signal (Rx Signal) -47,30 dBm, Transmission can still work within HUAWEI standardization frekuensi range at this time Power Transmit lowered to 20 dBm up link Fade margin obtained 23,20 dB. when down link obtained Fade margin value of 23,20 dB.

Keywords: *microwave link, pathloss, fade margin.*