

ABSTRACT

In the implementation of cellular networks or fixed wireless, operators often face the problem. Received signal quality degradation in the mobile station happens especially metropolitan area. Received signal quality degradation is very annoying, especially the customer service side as users. There are two common causes of decrease in received signal quality, The first is an object that is able to reduce signal (buildings, hills, tunnels). and the second is from the antenna. The antenna is an intermediary device between the transmission line and the air. the antenna must have the nature of the appropriate (matched) with the feeding line. If the channel is not matching the signal quality is not perfect as expected.

In this final project, designed a model form of parabolic reflector antenna bereksitasi linear helical. Designing a model with a form of parabolic reflector antenna for transmitting the assumption reflector radio waves well. So we get a good receive signal quality at receiver eksaiter form helical antenna.

From the design of parabolic reflector antenna after the measurements taken by the gain obtained ≥ 15 dBi with the working frequency of 1250 MHz - 2500 MHz. And return loss obtained is very small, so the antenna can be designed and implemented

Keywords: Wi-Fi, parabolic antenna reflectors, linear helical