

ABSTRACT

One of the applications the antenna mikrostrip is to support LTE wireless communication system, because the system operation frequency allocated is quite high, so that the antenna can be made mikrostrip with adequate dimensions to its application.

This research has been done on the design, simulation and realization of antenna by modifying the antenna-shaped monopole G which will generate a dual frequency for applied on LTE. Mikrostrip antenna with patch form-G is a modification of the antenna size monopole has been taken into account, resulting in a dual frequency at 1.8 and 2.1 GHz to LTE. Dimensions with a fairly small size enables the results of the draft can be applied either to eNode-B.

In the final project, entitled "form mikrostrip-G Antenna monopole Ribbon-double for LTE 1.8 and 2.1 GHz" antenna design using mikrostrip supply linefeed and done analysis with CST Studio Suite with specifications the form of the results of the return loss ≤ -10 db, VSWR ≤ 2 , bandwidth 60 MHz and 70 MHz, Gain ≤ 3 dBi, omnidireksional radiation pattern and linear polarization. The materials used for the substrate is FR-4. The resulting antenna has a linear polarization with omnidireksional radiation pattern that works on a frequency of 1.8 and 2.1 GHz frequency bandwidth. with 1.8 GHz of 121.3 MHz and on the frequency of 2.1 GHz amounted to 312.5 GHz. The resulting gain on design of antenna shapes the G at the frequency of 1.8 GHz is 0.9521 dB while the 2.1 GHz frequency generated gains of 1.33 dB

Keywords: Antenna, Microstrip, Monopole, Compact G Shape, LTE