

ABSTRACT

During the Covid-19 pandemic, cellular networks are needed in various fields including education, industry, and even business management. PT. Poca Network Solutions is one of the companies engaged in the field of contractors and consultants for the site or BTS founder companies needed in telecommunications systems that are closely related to the LTE network. The quality of the Long Term Evolution (LTE) network can be improved by analyzing the quality of the network and then optimizing it based on the results of the network analysis. The method used to obtain this analytical material is a drive test as this data is taken from several parameters used according to the provisions of the XL Axiata provider, namely: Physical Cell Identification (PCI), Reference Signal Received Power (RSRP), Signal Interference to Noise Ratio (SINR). These parameters will be analyzed to determine the quality of the LTE network used by XL Axiata. LTE network quality can be seen from the value of each parameter used. Optimization is done by changing the Azimuth, Mechanical Tilt, and Electrical Tilt. The results of the optimization of the Cisayong Tasikmalaya LTE site show an increase in the RSRP value, namely the RSRP value -115 dBm from the previous 99.02% to 99.13%, and the SINR value 3 dBm from 49.77% to 52.34% which means optimization was successful.

Keyword : LTE, Drive Test, SINR, RSRP, Azimuth