

## ABSTRACT

Development in the world of telecommunication is growing rapidly and is already a basic need for people who want to communicate comfortably, seamlessly and infinitely. So mobile telecommunication service providers are required to develop to meet the needs of consumers, one of which is the need for data package communication. Mobile communication system with 4G Long Term Evolution (LTE) technology is one of the most widely used technologies in the world. Every communication network service provider strives to provide the best service. In relation to services provided over the LTE network there are some things that may still occur problems. Communication occurs when the signal quality is maintained properly. In indoor building areas, poor eNodeB performance such as lack of radiance and many obstacle factors in the eNodeB coverage area. This allows Mobile Station (MS) to experience a weakening of the received signal so that there may be an MS failure in communication. Therefore, network maintenance is required to keep the signal quality in Indoor Building Coverage (IBC) well maintained. The method used is the measurement of Walk Test at Plaza Baru Ciledug Tangerang Banten site based on Physical Cell Identification (PCI), Reference Signal Received Power (RSRP), Signal Interference to Noise Ratio (SINR), parameters. The results obtained from the test with the Walk Test method, network performance in Plaza Baru Ciledug Tangerang can be said to be optimal because of the overall RSRP data the results of the Walk Test are  $99.71\% \geq (-100 \text{ dBm})$ . Then on PCI IBC parameter data  $100.00\%$  and on SNR parameters  $93.51\% \geq (5 \text{ dB})$ .

Keywords: 4G LTE, *Walk Test*, *Parameters*, *Indoor Building Coverage*.