

## **ABSTRACT**

The occurrence of radio broadcasting disturbance (broadcasting) is generally caused by a broadcast radio transmitter that occupies radio frequency channels that are not in accordance with the master plan established by the minister of transportation decision Number Km 15 of 2003. If there is a radio broadcast broadcast that has been aired and the status does not have permission (Illegal) use a frequency channel whose transmitting location in the licensed broadcast radio broadcast service area, the radio has the potential to interfere with licensed radio. Among them is Adjacent Channel Interference (ACI).

In order to reduce the incidence of Interference in the same service area occurs on the radio broadcast of LPK Dakwah FM 107.7 MHz (channel 202) to the radio broadcasting LPS PR FM 107.5 MHz (channel 200) causing the occurrence of Adjacent Channel 2, conducted analysis, simulation and evaluation of the occurrence of disturbance for It is recommended that the Adjacent Channel be incurred in the same service area based on field measurements that will be compared with the Spectral and Spatial Theory measurements.

Parameters measured are Link Budget and SINR calculations, VMware and MapInfo simulations aim to see the countour service area. Based on the calculation recommended the establishment of LPK in the same service area with minimum 40 dB SINR and at a distance of 18 km from the LPS transmitter center.

**Keywords:** Adjacent Channel Interference (ACI), Link budget, SINR