ABSTRACT

Pattern Reconfigurable Antenna (PRA) is one of the types of reconfigurable antenna that attracts attention and is useful, especially in systems that are prone to multipath interference, such as WLAN. PRA and WLAN are used to increase the Signal to Noise Ratio (SNR) by setting the main beam antenna in the desired direction and holding the other beam towards the source of interference. PRA is basically an antenna that can be used for applications that require beam steering or beam switching. Beam steering or beam switching capabilities can be used with the Phased Array Antenna Technique.

This final project will discuss how the effect of the shorting pin used on the antenna on the antenna simulation results. The results seen from the simulation results such as return loss, bandwidth, gain, radiation polarity and beamwidth or the amount of the antenna beam.

This design simulations of the reconfigurable antenna uses a substrate and ground plane in the shape of a box and a circle-shaped patch, also the use of shorting pins. The frequency tested in this simulation is 2.2 GHz- 2.7 GHz to obtain return loss, bandwidth, VSWR, gain and axial ratio results in the antenna simulation conducted.

Keyword: antenna, Shorting pin, returnloss, bandwidth, gain, axialratio