

## ABSTRACT

Reconfigurable antennas are receiving a lot of attention owing to their ability to modify their radiation characteristics like radiation pattern, frequency, polarization and combinations of these characteristics in real time. In order to realize this selectivity, switching circuits are essential. The object of this research is to develop an accurate model for the analysis and design of switching circuits for pattern reconfigurable antennas. Modelling of all switch circuit components and accounting for the effects of the other elements like the bias lines is seen to be crucial to the design of the switch circuit, and in turn to the performance of the antenna. The design of the switching circuits is done for a single band antenna, operating at the GPS frequency of 1.575 GHz (L1) and for a dual band antenna, which operates at the 2 GPS frequencies of 1.227 GHz (L2) and L1. Simulated results for the single band antenna are compared to measured results.