

ABSTRACT

Antenna is one of the most important device in the communication system, is no exception for satellite communications. This device serves as a transmitter and / or receiver of electromagnetic signals. When supplied with an AC signal, antenna will forward it to the air in the form of electromagnetic fields. In the inter satellite link communication an antenna serves as a transceiver which transmits and receives electromagnetic signals from one antenna to another, antenna with circular polarization is required to prevent tumbling between the sender and the receive, based on the previous reference antenna, the gain required approximately 4dBiC while the minimum beamwidth required is 90 degrees.

In this final project an inter satellite link communication antenna with slotted circular patch will be designed, the two slots at the patch intended to manipulate the electrical field to create a circular polarization. This antenna will implement a proximity coupled feeding method in order to support the design and specification. In the simulation and the realization the gain of the antenna supposed to be 4dBiC while the beamwidth must be more than 90 degrees.

Keywords : microstrip, circularly polarized antenna, *slotted patch*, *Circularly Polarized Synthetic Aperture Radar (CP-SAR)*.