

ABSTRACT

In satellite communication systems, there can be changes in the depolarization event. At frequencies below 3 GHz, depolarization occurs due to multipath and can result in variable and unstable reception signal strength microstrip antenna reconfigurable so that the reception signal strength is more stable. The goal that is expected to be achieved from the results of this study is to overcome the depolarization which results in a decrease in the reception signal with reconfigurable circular polarization using the nearly square diagonal feed method.

The antenna in this study uses a nearly square patch feeding technique discrete port. Microstrip antenna design Reconfigurable nearly square patch on the working frequency of 2.2 GHz got the measurement results of the return loss as expected, -10.41 dB for RHCP port and -11.59 dB for LHCP port, also for axial ratio parameter result for the RHCP port is 2.69 dB and for the LHCP port is 2.87 dB. The measurement result for VSWR RHCP port is 1.86 and 1.71 for LHCP port. The last is gain measurement result is 2.32 dBi for the RHCP port and 2.28 dBi for the LHCP port.

Keywords: Microstrip Antenna, Depolarization, Reconfigurable, Satellite Communication.