P Band Circular Polarized Mircostrip Antenna Array for Satellite Communication

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ABSTRACT

Because of wild coverage and bandwidth, the satellite communications become more and the satellite communications will be more popular and important in the future. For the moment, some satellite communications apply circular polarization to both transmitting and receiving signals . So, the design of circular polarization microstrip antenna will benefit the property of receiving signals greatly. The purpose of this thesis are building an antenna base on Styrofoam that used in structural construction. And then design a circular-polarization microstrip array antenna with size of 1.8 meters to promote antenna gain and enhance the directivity. The characteristics of narrow beamwidth and interference reduction are also achieved. Single feed point was used in the designed array antenna. Two opposing corners of the rectangle microstrip were cut off to achieve the circular excitation. Then antenna was rotated by 90 degrees to assemble the circular polarization array antenna.

Keywords : Microstrip Antenna、Circular polarization、Array antenna

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