

ABSTRACT

Antenna is important device in telecommunication. Together along with development of human necessary to communication, is needed antenna that has wide bandwidth and it can transmit large data and used for many applications at once.

In this final project, will be simulated and realized an unidirectional bicula antenna with Chebyshev match impedance in frequency range 300 MHz – 3000 MHz, with VSWR reference ≤ 1.5 , monotriangular feed and SMA terminal, terminal impedance 50Ω *unbalance*. This antenna consisted of twins conductor which has same line wide, same length, and is separated in same space were interpolated with the dielectrics substance as match impedance in propagation space to characteristic impedance of antenna.

From simulation gain is 7.6332 dBi, frequency range is 2700 MHz. From measuring, gain is 7.462 dBi at 1191 MHz (minimum of VWSR), and 6.468 dBi at 1650 MHz, frequency range is 1722.6 MHz (1027.2 MHz – 2749.8 MHz), unidirectional radiation pattern, and ellipse polarization

Key words : bicula antenna, Chebyshev