

ABSTRACT

Nowdays, microwave communication is very important. It can happened in everywhere, everytime, and has many kind of information. Because of that, antenna with wide bandwidth is needed to fulfil the requisities. Antenna is a transition form that used to match the intrinsic impedance of propagation space with characteristics impedance of transmission line.

In this final project, wide band antenna was applied. It is “ **Tricula Chebyshev Unidirectional Antenna 300 MHz – 3000MHz with Monotriangular Feed and SMA Terminal** “. This antenna consisted of twins conductor which were interpolated with the dielectrics substance without ferrite by using triangle 90^0 monopole to produce wide band frequency, use SMA Female connector, and transformer $\frac{\lambda}{4}$ Chebyshev.

From the measurement, the result obtained is $VSWR \leq 1.5$ in frequency of 863,21 MHz - 3000 MHz. Antenna impedance which approaches the impedance of 50 Ohm terminal is $51.48 - j17.39 \Omega$ in the frequency of 900,21 MHz, unidirectional radiation pattern, polarization is closed to linier (ellips), gain obtained is 6,243 dBi in 1650 MHz, 7,024 dBi in frequency of 2400 MHz, and 7,304 in frequency of 2700 MHz.

Keywords : antenna, Chebyshev, monotriangle.