

ABSTRACT

The Wide Bandwidth Omni Electric Tricula Antenna Using Monoconic is an Antenna that consist of 3 branch connected parallel with angel between horns is 120° , and using the monoconic, to make the transition between antenna and coaxial impedance smoothly. Each of branches based on the two strand of metal channel with puzzle as the dielectric, which had been transformed into copper plate (PCB) to make the realization easier and nattier. The dimension of two copper plate channels is determined by using binomial $\pi/4$ transformer commensurable technique. Where, that commensurable level amounting to one level.

In this final project had been realized Tricula antenna which have technique specifications: bandwidth reach up to 1000 MHz at range 2000 ± 500 MHz with limited VSWR = 1,5. The expected gain is = 6,2 dBi, it has omnidirectional radiation pattern and linear polarization.

To know performance of this antenna is needed a measurement mechanism. From measurement test, found each antenna parameters specification that are close to the technique specifications. In realizing this antenna, had found bandwidth equal to 1066,89 MHz at 1463,15 MHz - 2530,04 MHz frequency with limited VSWR = 1,5. While, gain equal to 12,2 dBi at 1463.15 MHz frequency, equal to 10,8 dBi at 1996.595 MHz frequency, equal to 8,00 dBi at 2530,04 MHz frequency. Radiation pattern from measurement test is close to omnidirectional characteristic and it's polarization in form of ellipse.